

FOCUS enhancements

ProxSys

MA Series Media Archive Servers



User Guide

Notices: Legal, Regulatory, and Safety

LEGAL

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Serial Number

The serial number for this equipment is located on the back of the unit. Please write this serial number on the enclosed warranty card and keep it in a secure area.

Regulations

Environmental Precaution



Focus Enhancements, Inc.
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Model Numbers: PX MA-10 or PX MA-50

Date of Manufacture:
Reference the Serial Number label attached to the unit.

For more information about regulatory compliance and other details, please refer to the Safety and Warranty Guide included with the server hardware.

Documentation

Read, Retain, and Follow Instructions

All the safety and operating instructions should be read before the product is operated.

- **Retain Documentation**
Place documentation in a secure place for future reference on operating and safety instructions.
- **Follow All Operating and Safety Instructions**
- **Pay Attention to All Warnings**
Warnings are provided to protect the operator, the equipment, and content.

Symbols Used In the MA Documentation



This symbol Indicates Important Information about conditions or actions that might damage equipment or data.



This symbol indicates information that the User will find helpful.

Table of Contents

- Introduction1
- Overview1
- MA Series Servers1
- Features1
- Web-based Graphical User Interface (GUI)1
- Operating Systems1
- RAID Data Security2
- RAID 12
- RAID 52
- Software2
- ProxSys Media Upload Utility2
- ProxSys Media Archive Manager2
- ProxSysMA Burn Tool Services2
- Disc Burning Software (MA-10 Only)2
- VMware2
- Blu-ray Burner2
- MA-10 - Internal Blu-ray Burner2
- MA-50 Automated Blu-ray Burner System2
- USB Hardware Key (Dongle)3
- Third-Party Software3
- Documentation Convention3
- About this Guide3

- ProxSys MA Media Archiving Server Operations5
- Overview of MA Server Workflow6
- Ingest Video Clips6
- MANUAL7
- AUTO WATCH7

Archive	9
MA-10	9
MA-50	9
Archiving Discs and Shortlist Reference Documents	9
Search and Retrieve Content	10
Storage Media File (Shortlist)	10
ProxSys Media Upload Utility	11
Downloading and Installing	11
Connecting to the MA Server	12
Manual Upload	13
Auto Watch	16
Folder watch	17
Device watch	17
Configuring Watch Settings	18
Editing a Watch	18
Transaction History	18
Configuration	19
Watch Settings	19
Load External Metadata	20
Assign Equal Named	20
Reset All Assignments	21
Miscellaneous Settings	21
MA Series Operations	22
Login	22
User's Rights and Default Login	22
Home Workspace	23
Quick select	23
not yet processed	23
via watchfolder	23
year	23
Bins	24
Bin Name	24
Description	24
Actions	24
Search	25
General Search	26
Date	26
Discs	26
Metadata Tags	26
Bins	26

My bins	.27
Display Layout	.27
Content List Functions	.27
Content Status	.28
Shortlist (Reference List)	.29
Organizing Shortlist Content	.29
Select Content to Delete	.29
Shortlist Output: Printer and PDF	.29
Preview Player	.30
Workflow: Burning Blu-ray (BD) and DVD Discs	.31
MA-10	.31
MA-50	.31
ISO Files After Burning Disc	.31
Burns Start After All Flash Files Are Created	.32
Maximum Video Clip Size	.32
Identifying Archived Content	.32
ProxSysMA Services Burn Tool	.32
Checking Burn Status	.32
Print-to-DVD Labeling	.33
Administration Tools	.35
Default Login	.35
User Admin	.36
User Privileges	.36
Adding a New User	.36
Removing a User	.37
Changing User Privileges	.37
Metadata Management	.38
Metadata Tags	.38
Simple Metadata Workflow	.38
Complex Metadata Workflow	.38
Metadata Controls	.39
Number	.39
Name	.39
Field in use	.39
Performance	.40
System Update	.40
Recreate Search Index	.40

Statistics	.40
System Information	.40
Burn Settings	.41
Burn Settings	.41
Number of media	.41
One bin per media	.42
Media size	.42
Work directory	.42
Burn fill ratio (MA-50 only)	.42
Minimum fill ratio (MA-50 only)	.42
Delete files after ISO creation	.42
Automatic Burning Schedule	.43
Create media now (Burn-on-Demand)	.43
Backend Settings - MA-10	.43
Backend Type	.43
Backend Settings - MA-50	.43
Backend Type	.43
Primera Settings	.44
Rimage Settings	.44
Label Settings	.44
MA-10	.44
MA-50	.44
Custom Labels	.44
ProxSys Settings	.45
Unarchived Content	.46
Preview File Status	.47
Render Preview	.47
Replace Failed Preview with Generic Preview	.47
Technical Information	.49
Media Formats	.50
Calculated Storage Requirements	.51
Maximum File Size Supported	.52
BD and DVD Disc Capacities	.52
Hardware	.53
MA Dongle	.53
Hard Drives	.53
North, Central, and South America	.53
Europe, Middle East, Africa and Asia	.55

RAID Data Protection .....	.56
RAID 1 .....	.56
RAID 5 .....	.56
Replacing a Failed Drive .....	.56
OS and Virtual Machine Operations .....	.56
Windows XP PRO .....	.56
SUSE Linux .....	.56
Installing Third-party Software .....	.57
Operations .....	.58
MA Server Applications Fail to Initialize .....	.58
Viewing Preview and Video Files Without the MA Server .....	.58
Backing Up Proxy Preview Files and Metadata .....	.58
RAID 1 (North, Central, and South America) .....	.58
RAID 5 (Europe, Middle East, Africa, Asia) .....	.58
Restarting the MA Server .....	.59
If MA Server Login Fails .....	.60
IP Networking Information .....	.61
Assign the MA Server A Fixed IP Address .....	.61
Configure Host (Windows) Network Settings .....	.62
Configure MA Server VM Network Settings .....	.64
P2 Information .....	.66
File Handling During Ingesting and Archiving .....	.66
High Resolution Content .....	.66
P2 and PX MA Metadata .....	.66

Overview

Thank you for purchasing a Focus Enhancements, ProxSys MA Series Media Archive Server.

MA Series Media Archive Servers provide the ability to efficiently ingest video clips with their metadata from tapeless recording media into the MA server's media archive. There, preview Flash clips are rendered and Blu-ray discs are burned for archiving.

Ingesting media into the MA server clears the recording medium and allows it to be returned quickly to the field for reuse. This eliminates the practice of using expensive tapeless recording media as archive storage.

MA Series Servers

There are two MA Series Server editions:

- **MA-10 with Internal Blu-ray Burner**
- **MA-50 with External Automatic Blu-ray Burner System**

Both versions provide the same level of media ingest and archive functionality. The single difference: the **MA-10** is for the manual burning of individual Blu-ray discs while the **MA-50** provides for the automated burning of multiple Blu-ray discs.

The MA-Server's user interface is browser-based and no proprietary client software is required to access the server. A Flash player application must be installed on local client machines to view the MA Flash preview clips.

Features

Web-based Graphical User Interface (GUI)

The ProxSys MA Series Media Archive Server GUI is compatible with the Microsoft Internet Explorer, version 6 and higher (IE 6/7) and Apple Safari browsers.

Depending on how the MA server is setup, MA functions are accessible via the GUI directly from the MA server, over a network or the Internet.

Operating Systems

Microsoft Windows XP PRO, 32-bit, Edition
SUSE 11 Linux running as a virtual machine

RAID Data Security

RAID 1

In North America, the MA servers use three high-capacity hard drives, one 500GB buffer drive and two 1TB data drives, along with RAID 1 to protect data from drive failure.

RAID 5

In the Europe, due to market requirements, the MA servers use three high-capacity, 1TB, hard drives and RAID 5 to protect data from drive failure.

Software

ProxSys Media Upload Utility

This application runs on the MA server or a remote Mac/Windows system for ingesting video clips from shared storage devices and network drives into the MA server for archiving on Blu-ray disks.

ProxSys Media Archive Manager

Use this browser-based application to manage video content metadata and storage on the MA server. In addition, the manager includes a set of server administration tools.

ProxSysMA Burn Tool Services

Click on the ProxSysMA Services icon in the Tool Tray to display the progress of a running burn job.

This application uses Administrator defined settings to create ISO files of the content, configure the BD discs, and control the BD burner, see **Burn Settings** on page 41.

Disc Burning Software (MA-10 Only)

A disc burning application is installed on the MA server. Use it to burn ISO files to disc.

VMware

This virtual machine hosting application is integral to the MA server but transparent to the User. For more information, see **OS and Virtual Machine Operations** on page 56.

Blu-ray Burner

MA-10 - Internal Blu-ray Burner

Manual operation, burn disks individually.

MA-50 Automated Blu-ray Burner System

Automatic burning of multiple disc sets.

USB Hardware Key (Dongle)

Before the MA Series Media Archive Server can operate, a USB hardware key (dongle) must be inserted in to one of the server's USB ports. The dongle authorizes the MA server applications. The dongle must remain in the USB port for the applications to function.

There is no limit to the number of server Users.

Third-Party Software

Focus Enhancements recommends that, with the following exceptions, third-party software should not be installed on the MA servers:

- P2 and Sony XDCAM/XDCAM-EX players on MA-10 and MA-50 servers, see **Installing Third-party Software** on page 57.
- PDF Reader on MA-10 and MA-50 servers.

These third-party applications must be installed on the MA server's **Tools (T:)** drive, see **Installing Third-party Software** on page 57.

Documentation Convention

In general, information in this guide applies to all MA Series Media Archive Servers unless it is specifically identified as MA-10 or MA-50.

About this Guide

It is assumed that the user of this guide is familiar with:

- Collection and use of tapeless content
- Use of tapeless media devices on Windows / Mac computer systems
- NLE (non-linear editing) workflow

This guide is divided into three sections:

ProxSys MA Media Archiving Server Operations	5
Administration Tools	35
Technical Information	49

ProxSys MA Media Archiving Server Operations

This chapter provides step-by-step instructions for the ingesting and archiving of video clips using the ProxSys MA Series Media Archive Server.

This chapter contains the topics:

Overview of MA Server Workflow	6
Ingest Video Clips	6
Archive	9
Search and Retrieve Content	10
ProxSys Media Upload Utility	11
Downloading and Installing	11
Connecting to the MA Server	12
Manual Upload	13
Auto Watch	16
Configuration	19
MA Series Operations	22
Login	22
Home Workspace	23
Quick select	23
Bins	24
Search	25
Shortlist (Reference List)	29
Preview Player	30
Workflow: Burning Blu-ray (BD) and DVD Discs	31
MA-10	31
MA-50	31
Burns Start After All Flash Files Are Created	32
Maximum Video Clip Size	32
Identifying Archived Content	32
ProxSysMA Services Burn Tool	32

Overview of MA Server Workflow

The MA Series Media Archive Server is a desktop workstation/server that:

- Uploads high resolution video clips and associated metadata
- Creates low resolution proxy preview files for later reference
- Stores preview files and metadata in MA server database for search and reference
- Burns high resolution content to single- and dual-layer DVDs and BD discs

In addition, the MA server provides the ability to:

- Add or edit existing video metadata
- List archived video files in a shortlist to use for search and retrieval
- Output the shortlist as a PDF or printed reference document
- Create print-to-DVD labels

The MA server workflow involves three primary steps:

1. Ingest high-resolution video clips and their metadata using the Media Upload Utility:
 - Select media for transfer
 - Optionally add or edit metadata
 - Upload content to MA server
2. Archive:
 - Optionally edit metadata
 - Burn content (high resolution video and proxy preview files) to single- and dual-layer BD and DVD discs using Auto or Manual procedures
 - Store archive discs
3. Search and Retrieve Content (Shortlist):
 - Search for metadata and preview clips in online MA storage
 - Play preview clips
 - Optionally edit metadata,
 - Select content to retrieve (creating shortlist)
 - Publish shortlist as PDF file or printout
 - Retrieve content using shortlist

Ingest Video Clips

Ingest is the process that involves the transfer of video clips from the video device's storage media to digital files stored on the MA server. The Ingest process is controlled with the **ProxSys Media Upload Utility** and performed from the MA server or a computer with network access to the server. The MA server can ingest clips from local or networked hard drives and a variety of solid state media, such as P2, SxS Pro and Compact Flash (CF) cards.



Ingesting P2 Cards: Amount Stored Versus Maximum File Size

- The MA server can ingest and support files sizes of up to and including 50GB.
- When ingesting content from a storage device, like a P2 card, the total size of the content stored on the card is not important so long as no single clip exceeds 50GB in size.

The upload utility provides three methods for ingesting video files:

- **Manual**
- **Folder watch (Auto Watch function)**
- **Device watch (Auto Watch function)**

As each high resolution video file is uploaded, the MA server creates a preview Flash clip for that file. Each video clip, its preview file, and its associated metadata, are logged into the MA server's media database. Video metadata can be added to or changed as a part of the manual ingest procedure or once the clips are stored in a bin, named folder, on the MA server.

MANUAL

The User manually:

1. Selects the video clips to ingest.
2. Modifies their metadata.



Adding and Modifying Metadata

The Manual method offers the opportunity to add, change or delete video clip metadata before the ingest process begins. Because Folder and Device watch are automated methods, they do not provide the ability to edit video clip metadata.

3. Selects or creates a destination bin on the MA server.
4. Initiates the ingest process.

Selected video clips can be dragged and dropped into the utility window from the system's file/folder browser, for example Windows Explorer.

AUTO WATCH

The upload utility's two **AUTO WATCH** functions allow the utility to monitor specified **Folders** and **Devices**, such as CF card readers, and automatically upload video content and metadata when new content appears.

Folder watch

The User:

1. Selects folders to monitor for new content.
2. Selects an existing bin or creates a new bin to receive the uploaded content.
3. Sets the time for the upload utility to periodically check the folders.
Folders can reside on a NLE client computer or the MA server so long as the folder is shared on the network.
4. When new video clips are found the upload utility automatically ingests them.

Device watch

Note

When Uploading Structured Content, Use Device Watch.

Device watch may be used to upload both structured and unstructured content.

This is similar to the Folder watch except that a device is identified as the target of the watch. The most common devices are removable hard drives and card readers attached to the MA server. Do not use Device watch to monitor shared and local drives.

An example is when the CF card is inserted into a watched card reader slot. Inserting the CF card initializes the reader as a new device on the system. The upload utility receives the system alert, recognizes that it is a watched device, and ingests the card's contents. The video clips, metadata, and preview clips are automatically stored in the User designated MA server bin.

Note

Watch Function and Metadata

If the watched video content, such as P2 or XDCAM, has metadata, it is ingested with the video and logged in the MA server's database. The User can set whether external metadata is ingested or not, see **Load External Metadata** on page 20.

Metadata Can Not Be Edited During Ingest Procedure

It is possible to edit metadata once the video clips are stored on the MA server.

MA Servers Support File Sizes Up To 50GB, Including XDCAM

There are only two limits to the amount of content that the MA servers can store:

- The amount of open storage available.
- An individual video clip can not exceed 50GB in size.

Watch Content and MA Quick Select Workspace

When content arrives from a watched folder or device the destination bin is marked as containing **watch upload**. In the MA Series Quick Select workspace, the bin appears in the **via watchfolder** list under the **Quick select** option. The purpose of this is to notify the user that their metadata may not exist and should be added before archiving.

For instructions about using the upload utility, see **ProxSys Media Upload Utility** on page 11.

Once a video file is ingested into the MA server it appears in the designated bin with a thumbnail of the first usable frame of the video file. Clicking on the thumbnail, opens the **Preview Player**, see page 30. To preview clips from a remote workstation, it is necessary that a Flash player application is installed on the workstation.

At this point, it is possible to use the MA server's web-based user interface to edit selected video metadata.

Archive

The MA servers are equipped with burners that can create BD and DVD discs. Both MA servers create ISO files that they use for burning discs.

MA-10

The MA-10 is equipped with an internal, manual DVD and Blu-ray burner.

1. Use the MA-10 to create an ISO file of the intended archive content.
2. Use the separate burning application to manually burn the disc and print the disc label.

MA-50

The MA-50 employs a robotic DVD and BD burner that can be configured to burn multiple discs using either a burn schedule or on-demand.

In addition, the MA-50 offers the option to create two identical copies of the original disc, one for active use and one for deep archiving.

Note

MA Servers are designed for archiving data and are not intended for use in disc production.

Once content is uploaded to the MA and ingested, it can be added to the burning queue and the burn process begun. Depending on the settings, it is possible to start burning ingested content while uploading other content.

Archiving Discs and Shortlist Reference Documents

Once the discs are created, two ID codes are automatically assigned to each file:

- A unique File ID
- The archive disc ID, see **Identifying Archived Content** on page 32

Search and Retrieve Content

The MA server provides the ability to create a Storage Media File, or **Shortlist**, that allows the User to search the archive discs for high-resolution content.

Storage Media File (Shortlist)

The **Shortlist** is a User specified list of archived high-resolution content. This list provides the User with the information needed to retrieve the original, high-resolution content stored on archive discs.

To create a Shortlist:

1. Use the MA server's search function to locate the desired content and then place it in the shortlist pane.
2. Once the shortlist is created, it can be sorted by filename or media storage ID.
3. When the shortlist is completed, it can be output it as:

HTML Print file

The MA server creates the shortlist as a HTML file that appears in a browser window. This file can be sent to the User's local printer. This shortlist contains each video clip's:

- Filename
- Thumbnail
- All metadata tags in use, see **Metadata Management** on page 38.
- Creation date
- Length
- Storage Media ID

PDF File

The MA server generates a PDF file of the Shortlist which can be displayed or saved to the User's local hard drive. This list is on letter size pages, with a cover page, a table of contents, list of Storage Media IDs, and a list of videos with their:

- Filename
- Thumbnail
- Individual file ID
- Creation date
- Length
- All metadata tags

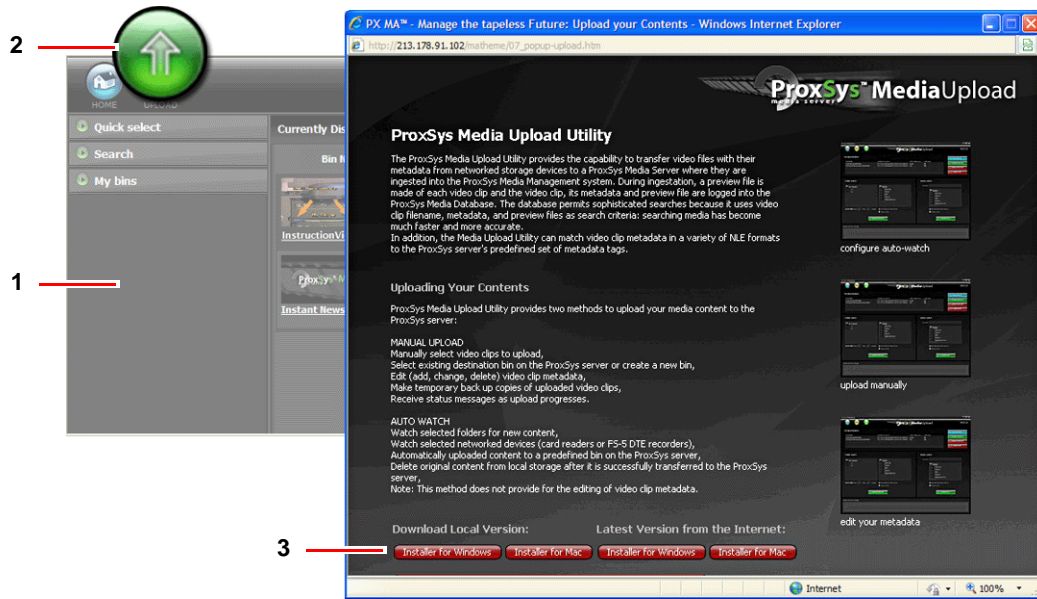


A PDF Viewer Must Be Installed On the Local Machine

ProxSys Media Upload Utility

Use the ProxSys Media Upload Utility to configure and initiate the MA server's Ingest process. This utility may be installed in computers networked to the MA server and used to load ingest video from those computers.

Downloading and Installing



The Media Upload Utility is a JAVA application and it is necessary that the computer running the utility have the latest version of JAVA installed before installation of the upload utility. To get the latest version of JAVA go to www.java.com.

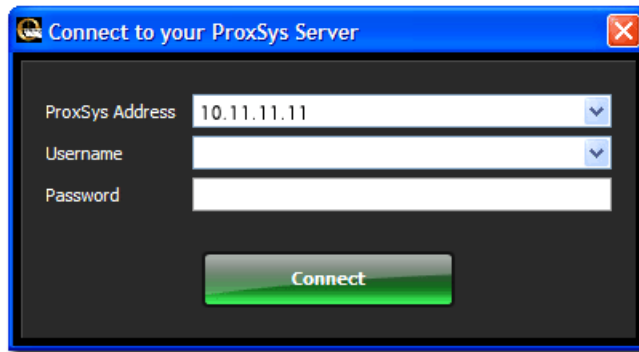
The latest versions of the upload utility, for Windows and Mac, are available through this window. To download and install the utility:

1. Open the MA server's web-based interface, see **Login** on page 22.
2. Click on the **Upload** button.
The **ProxSys Media Upload** window appears.
3. Select and click the source from which to download the ProxSys Media Upload Utility installer: from the MA server or the internet. Installers for Windows and Mac are available.
4. Follow the instructions to download the installer.
5. Locate the upload utility install file and run it.

To download directly from Focus Enhancements:

- **Latest Window version**
<http://www.focusinfo-emea.com/staticdownloads/MediaUploadSetup.msi>
- **Latest Mac version**
http://www.focusinfo-emea.com/staticdownloads/MediaUploadSetup_MAC.zip

Connecting to the MA Server



When a User starts the Media Upload Utility the **Connect to your ProxSys Server** window appears.

The first time a User starts the upload utility it is necessary to enter:

Proxsys Address

Enter only the server's numerical address. The default is 10.11.11.11.

Username and Password

The MA server ships with the default Username and Password.

Username: **Administrator**

Password: **admin**



Username and Password Are Case Sensitive

To ensure the best security for your MA and content, it is recommended that the MA Administrator change this logon to a more secure form during installation.

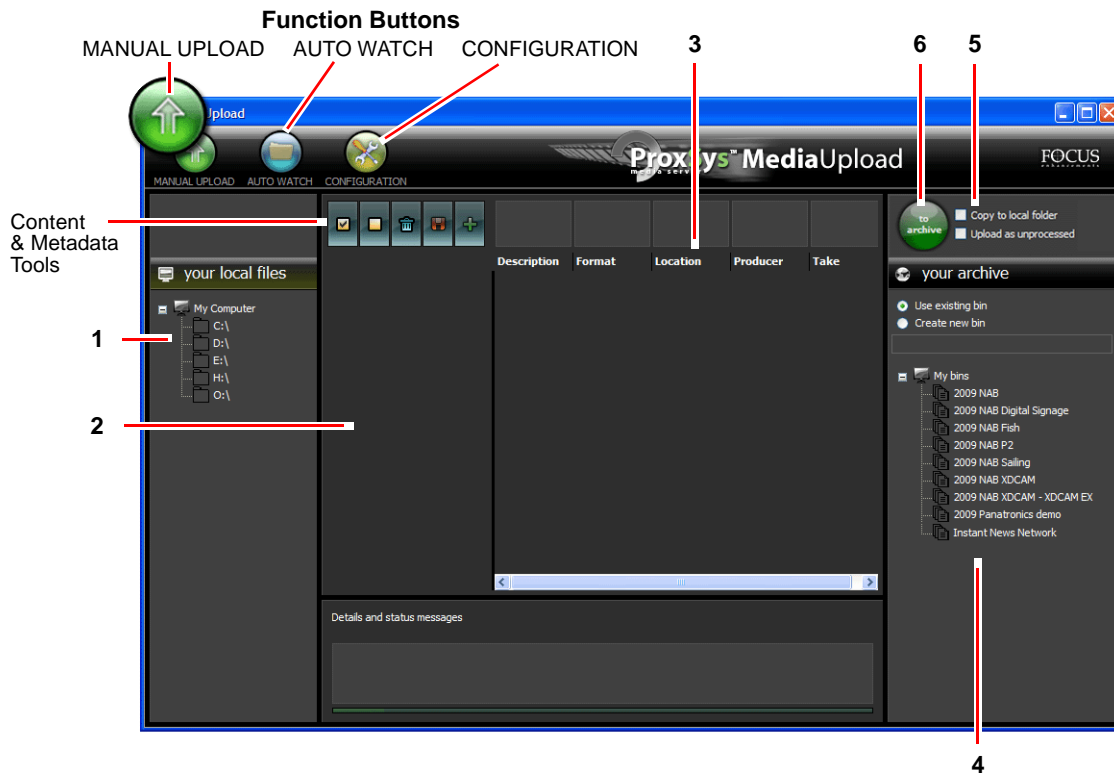
Next, press **Connect**.

This information is compared to User access privileges and stored.

In the future, the User only needs to complete the **Username** or **Password** -- the other fields are automatically completed -- and click on **Connect**.

The first utility window to appear is the **MANUAL UPLOAD**.

Manual Upload



Use this window to manually select the video clips to upload and their destination bin on the MA server. In addition, **MANUAL UPLOAD** provides the ability to add, change, or delete video clip metadata.

1. Locate the video clips to upload using the **your local files** directory tree.
2. Drag and drop the files into the area under the Content and Metadata Tools, to the right of the directory tree.

The cursor indicates where to drop file.

If there are video clips in other folders, drag and drop them into the upload area.

If there is metadata associated with a video clip it appears in the row to the right of the video clip filename.

iNote

Dragging and Dropping P2 Files

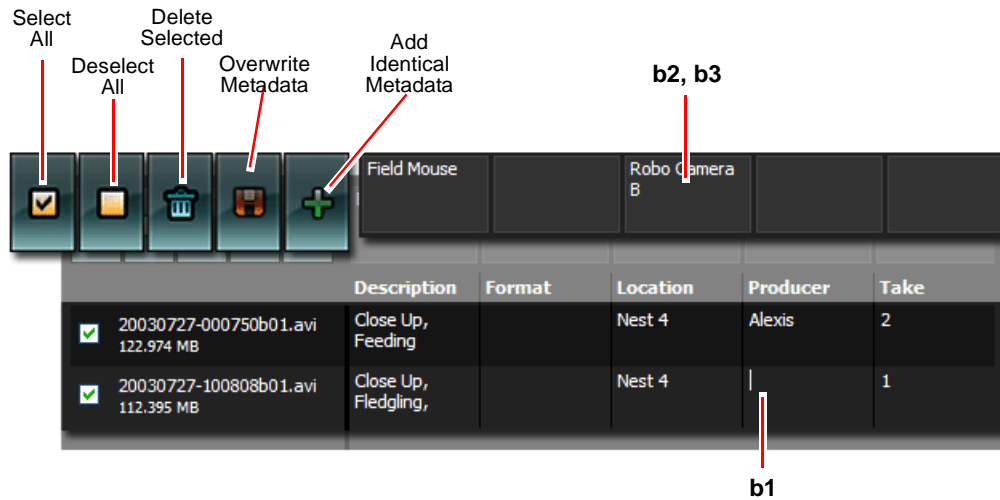
- To load a single P2 file, drag the video clip's XML file into the open area under the Content and Metadata Tools.
- P2 content can also be added by dragging the entire root directory for the P2 clips into the upload area under the Content and Metadata Tools. The MA automatically finds and loads all the clips.

Dragging and Dropping XDCAM Files

- To load a single XDCAM file, drag the video clip's XML file into the open area under the Content and Metadata Tools.
- To load an entire XDCAM card, drag the entire BPAV directory into the upload area under the Content and Metadata Tools. The MA automatically finds and loads all the clips.

When the utility uploads the P2 or XDCAM XML file(s) the associated video clip(s) also upload.

3. Edit the video clip metadata, if necessary.



It is possible to edit a single clip or multiple clips in a batch.

- a. If batch editing, place a check mark by the filename of the files in the batch.
- b. Edit metadata tags.
 1. **Edit individual metadata tags**
Click on the text to insert the cursor.
 2. **Add metadata to existing data**
Click on the empty field at the top of the metadata tag's column.
Enter text.
Click on the **Plus** sign. This appends the text to the end of the existing data in each selected file.
 3. **To overwrite metadata**
Click on the empty field at the top of the metadata tag's column.
Enter text.
Click on the Diskette icon. This overwrites the metadata with the new text in each selected file. This is helpful if accidental duplications occur or large amounts of text need to be modified in a single field.

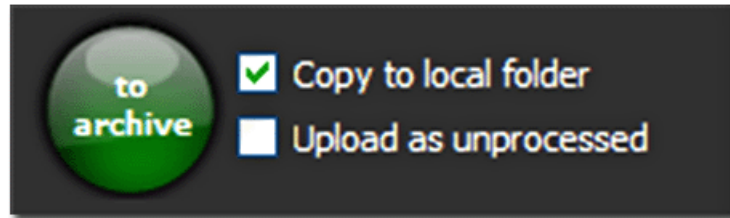
iNote

Metadata Fields Cleared When the Media Upload Utility Is Shut Down

Shutting down the upload utility clears both the metadata fields and Auto Watches, see **Auto Watch** on page 16, and it will be necessary to re-enter them when the utility restarts. Metadata that has been saved with content is safe.

4. Select the destination bin in the **your archive** pane.
There are two types of bins: **Use existing bin** or **Create new bin**.
Select the bin type.
 - If the bin already exists, click on it.
 - If creating a new bin, click on the empty field below the **Create new bin** option.
Enter the new bin's name.

5. Select **to Archive** options.
It is possible to select, one, both or neither of these options.

**Copy to local folder**

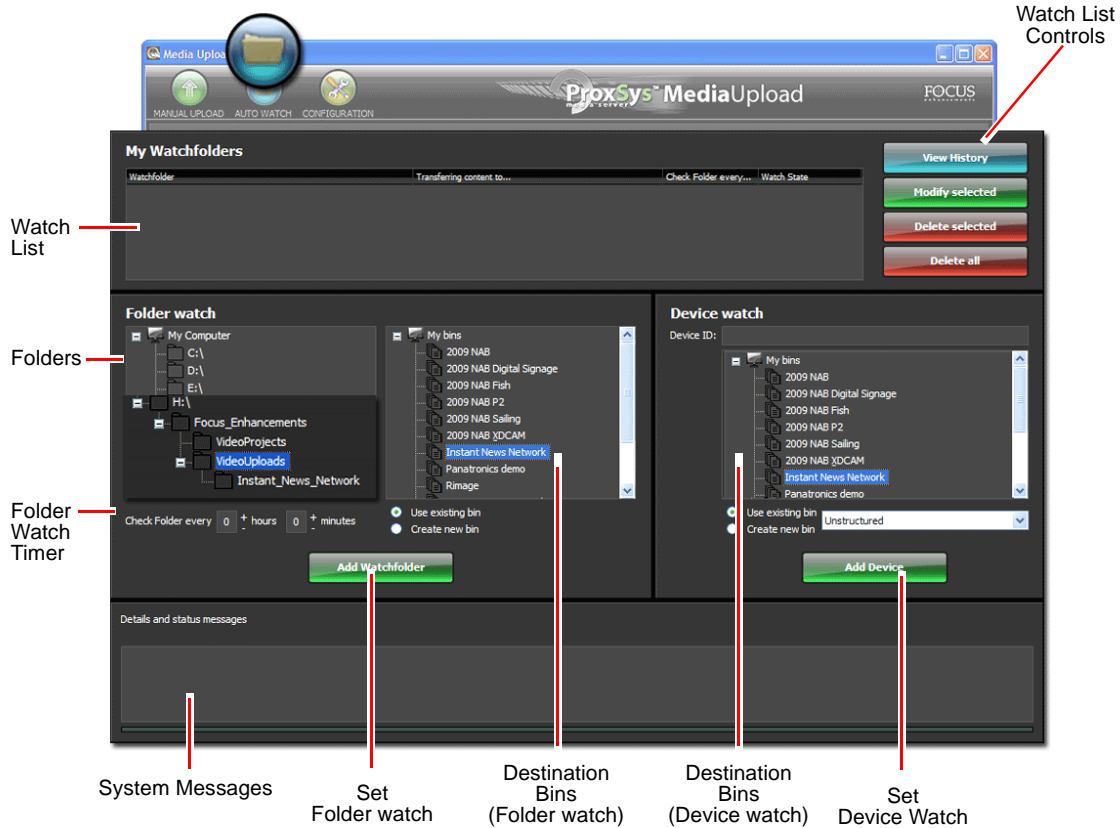
Use this to create a copy of the uploaded clip(s) in a local folder: for more information, see **Configuration** on page 19.

Upload as unprocessed

Use this option if uploading video clips without editing their metadata tags. The unprocessed clips are placed in a bin that is accessed by clicking on the **Quick select** button **not yet processed**. Once uploaded to the MA server, use the server's web interface to edit clip metadata.

6. Click on the **to Archive** button to start the upload.
The progress of the upload is displayed in the **Details and status messages** box at the bottom of the upload window.

Auto Watch



AUTO WATCH provides the ability to automatically upload video clips to the MA server from local **Folders** or **Devices**, such as CF card readers. In both cases, the watch procedure involves:

- Designating a target (folder or device) to be watched by the **Media Upload Utility**.
- Designating a destination bin on the MA server.

Frequency of the automated upload depends on:

- **Folder** - the User sets a timer that tells the utility when to check the folder. A watch can be continuous or as infrequently as once every 24 hours.
- **Device** - the utility watches for the system message that is sent when storage media is inserted into the device and the device goes online.

iNote

AUTO WATCH Functions Do Not Provide Metadata Editing Capabilities

Because **AUTO WATCH** is an automated upload process, it is not possible to edit video clip metadata. The metadata is uploaded and logged into the MA server's database in its original form.

Watch Functions Are Active Only While Media Upload Utility Is Active

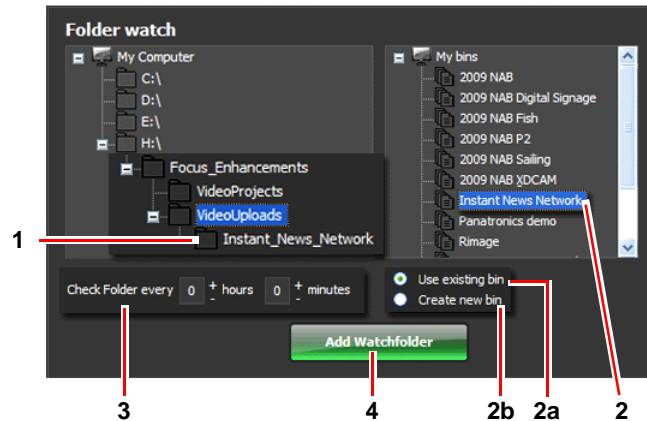
Because **AUTO WATCH** is an upload utility function, it runs only when the utility is running. **AUTO WATCH** runs in the background, minimize the utility window to hide it. To add the utility to the computer's autostart list, use the extension -autologin.

To Import Structured Content Use Device Watch

To import structured content like P2 and SxS, use the **Device watch** function.

On the MA server, locate and track the upload of content from the watchfolder. In the **Quick select** menu, click on the **via watchfolder** button to display a list of bins that are ingesting or have ingested content via a watch.

Folder watch



1. Select the host folder to watch.
2. Select the destination bin.
 - a. If the bin already exists, click on the bin and select **Use existing bin** option: in the illustration, **Instant_News_Network**.
 - b. If the bin does not exist it must be created. Select the **Create new bin** option. The MA server will create a new bin using the name assigned to the sub-folder in Step 1. The MA bin structure does not include sub-bins.
3. Set the **Check folder** timer.

This is the time that the upload timer waits before it checks the folder and uploads its contents. As long as the Media Upload Utility is active, the timer runs continuously and uploads are performed periodically.
4. Click **Add Watchfolder** to save and activate the watch.

The watch is listed in the **Watchfolder** pane.

Uploading Files

To upload files, place them in the host directory's target sub-directory.

Device watch

1. Enter the device's ID in the **Device ID** field. This tells the utility which device to monitor for activity.

An example of a device ID is the system assigned drive letter for a P2 card reader. It may be necessary to include the drive name with the drive letter.
2. Select the destination bin.
 - a. If the bin already exists, click on the bin and select **Use existing bin** option.
 - b. If the bin needs to be created, select the **Create new bin** option. When the upload occurs, the MA server creates a new bin with the date of the upload.

3. Select the type of file being uploaded from the dropdown menu.
4. Click **Add Watchfolder** to save the watch.
The watch is listed in the **Watchfolder** pane.
When storage media matching the **Device watch** criteria is inserted into a reader, a system message is sent out, the upload utility receives the message and initiates the upload/ingest. The utility upload message window, **Transfer content to your ProxSys**, appears. The upload occurs automatically: no actions are required.

Note

Watchfolder Function Is Active Only When Media Upload Utility Is Running

The Watchfolder is a function of the Media Upload Utility, not the MA server. Watchfolder is active only while the upload utility is running. If it is necessary for Watchfolder to run 24 x 7, the upload utility must be allowed to run continuously, in the background.

Configuring Watch Settings

There are three watch settings located in the **CONFIGURATION** window.

- **Delete local content after upload**
- **Transfer already existing content**
- **Wait for copy completion**

For more information about these settings, see **Wait for copy completion in Minutes** on page 19.

Editing a Watch

Watches are editable.

1. Select the watch to edit from the list in the **My Watchfolders** pane.
The watch settings display in either the Folder or Device watch areas.
2. Change any of the settings.
3. Click **Modify selected** to save the changes.
The changes appear in the watch item in the **MyWatchfolders** pane.

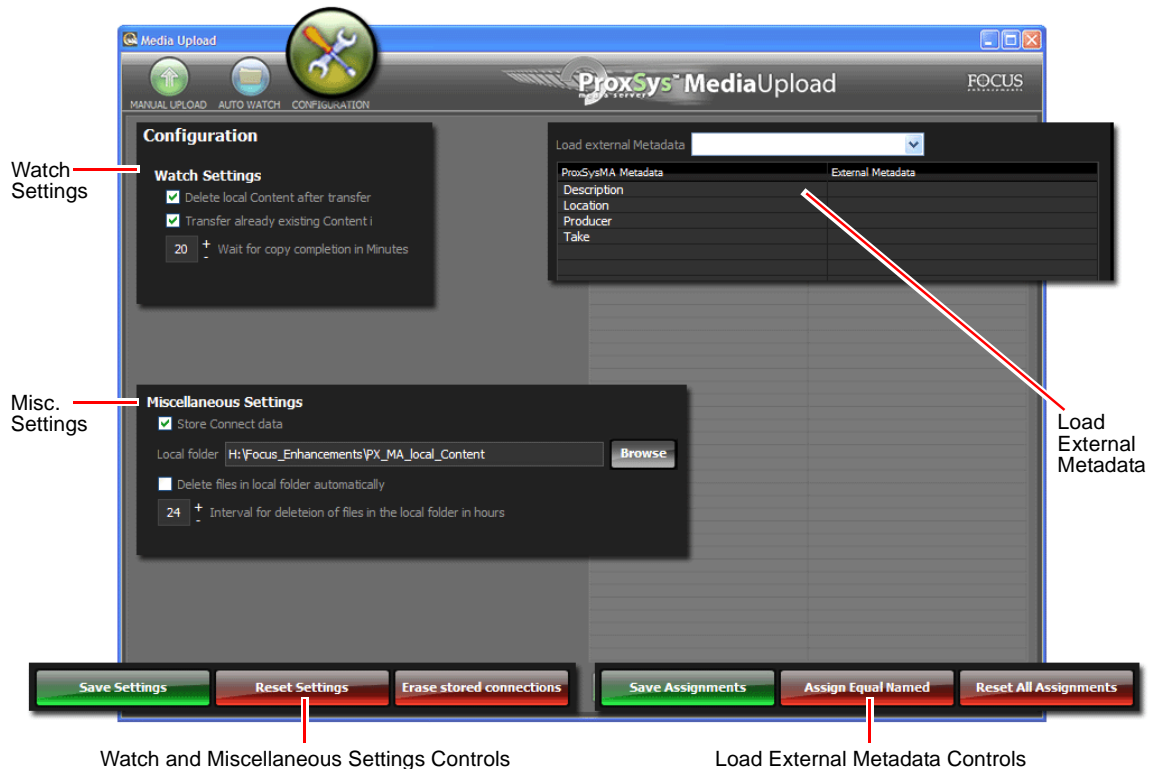
Transaction History

Click on the **View History** button to see an itemized list of all **AUTO WATCH** activities for the time that the upload utility has been running. These transactions include:

- Creation and modification of watches (monitors),
- When watch timers are started,
- When uploads begin, end, and if they are successful,
- Errors,

Closing the upload utility resets the history function and clears the transaction list.

Configuration



The **CONFIGURATION** window provides additional parameters in three areas: **Watch Settings**, **Loading external metadata**, **Miscellaneous Settings**.

Watch Settings

Delete local Content after transfer

When enabled, the upload utility deletes the **Watch folder** files after they have been uploaded to their destination bin.

Transfer already existing Content

Use this setting to upload content that has been uploaded previously.

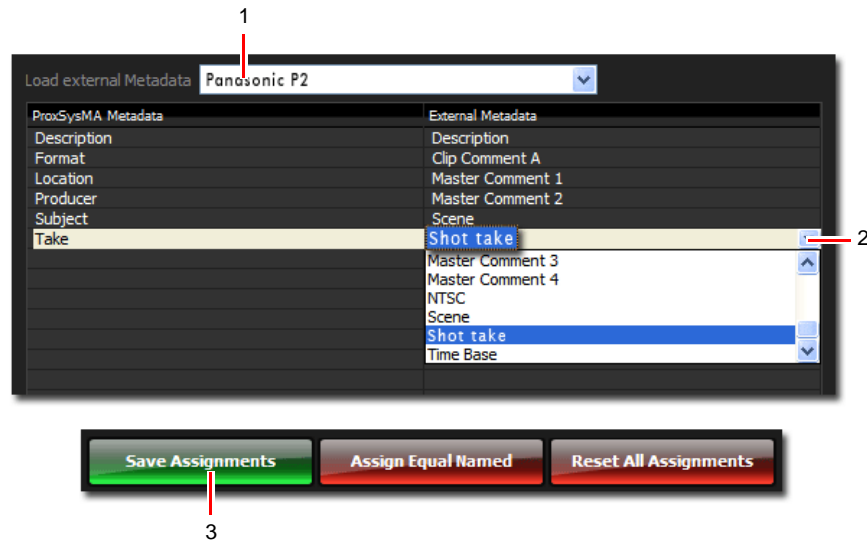
When previously uploaded content is about to be transferred, the upload utility appends a copy number to the filename and posts a message in **Details and status messages** pane to alert the User.

It does not matter if the previously uploaded file is transferred to the same bin as before or to a new bin, it will receive a new copy number each time it is uploaded.

Wait for copy completion in Minutes

Use this time to create a wait period before the upload starts. This is done, to insure that there is enough time to allow the complete copying of a file to the target folder before upload begins.

Load External Metadata



Use this workspace to ingest the external video clip metadata (native metadata). The **ProxSysMA Metadata** column lists the MA metadata tags used by the MA server to perform content search and retrieve operations. It is important to identify the external metadata tags that have the same type of data as the MA server's tags. The upload utility provides the ability to translate external tags with different names to the MA server tags. For more information about metadata see **Metadata Management** on page 38.

Use these settings to match external metadata with the MA server's metadata.

1. Select the type of metadata being uploaded from the **Load external metadata** dropdown menu.
The dropdown menu contains a list of metadata standards. Pick the one used during the recording of the video.
Displayed in the ProxSysMA Metadata column is a list of the MA server metadata tags. This is a list that the MA server Administrator manages, see **Metadata Management** on page 38.
2. Assign video clip metadata to each MA metadata tag.
Click on the empty field in the **External metadata** column opposite the MA tag. A dropdown list of video metadata tags appears. Pick the tag whose data is similar to the MA tag.
3. Click on **Save Assignments** to complete.

In addition, there are the **Assign Equal Named** and **Reset All Assignments** controls.

Assign Equal Named

Click on this button to automatically assign external metadata tags to MA tags that have the same name.

Reset All Assignments

Click on this button to reset all metadata assignments to empty default.

Miscellaneous Settings**Store Connect Data**

Check this box to save server connection data for future use.
It is possible to save multiple users and servers in the upload utility.

Local folder

Use the Browse function to set a path to a folder where the upload utility can save files that it has uploaded to the MA server.

Delete files in local folder automatically

Use this function with **Interval for deletion ...**
Check this box to remove files saved to the local folder.

Interval for deletion of files in local folder

Set a time period that the upload utility should wait before it deletes files in the local folder: minimum is 6 and maximum is 96 hours.

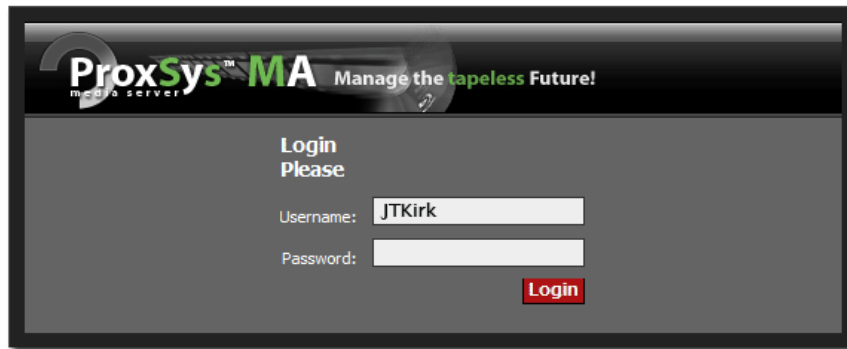
MA Series Operations

Use a Windows or Mac supported browser to access the MA server's features:

- Search content metadata to locate newly uploaded and archived content
- Preview video content using Flash proxy preview files
- Manage metadata fields
- Add or edit video clip metadata
- Manage the MA server's User rights
- Create and output shortlists of selected content which provide content metadata, video thumbnails, file details, and archival location (disc ID)
- Manage archive disc burn settings
- Monitor MA system performance

The browser requires only that a Flash player be installed on the host computer.

Login



The screenshot shows a web browser window with a dark header. The header contains the Proxsys logo and the text 'MA Manage the tapeless Future!'. Below the header is a login form with the following elements:

- Text: 'Login Please'
- Text: 'Username:' followed by a text input field containing 'JTKirk'
- Text: 'Password:' followed by an empty text input field
- A red button labeled 'Login'

Using a Mac Safari or Internet Explorer, version 6 or higher, browser, enter the IP address of the server in the browser's address field to open the MA server's Login window.

1. Enter your **Username** and **Password**.
2. Click on **Login**.

The main User window appears.

User's Rights and Default Login

The MA Administrator sets User's rights including Username and Password. The MA server default login is **Administrator** and **admin**, for more information see **User Admin** on page 36.

Home Workspace

Retrieve Latest Version Media Upload Utility

Set Number of Items Shown In Content Area

Quick select

Search

My bins

Currently Displaying: All available bins

Bin Name	Description	Creat. Date	Actions
InstructionVideo 14	Installing Blu-ray burner	2009-06-22 14:30:00	edit bin metadata merge bin with... delete this bin create media now
Instant News Network	24 x 7 WebTV news broadcaster	2009-06-11 23:01:01.06	edit bin metadata merge bin with... delete this bin create media now

Sort by storage id

Sort by filename

You haven't added any files/bins to your shortlist.

Place files/bins here by pushing the corresponding button in bin overview or file detailview or drag the thumbnail here.

Select Method to Find Content

Bin

Short List Area

The Home workspace has the following areas and functions:

- **Home** button - use to return to default Home workspace from other pages.
- **Upload** - retrieves latest version of **Media Upload Utility** from Focus Enhancements website for installation on the MA server.
- **Show** - use to set the number of items, bins or content files, to show on a workspace page.
- **Quick select, Search, My bins** -- use to locate content files stored on MA server.
- **Bin Name** - click on name or icon to open a bin and show its content.
- **Action** - use these buttons to manage content in a bin. The User's privileges determine which actions are available, see **User Admin** on page 36.

See below for a full description of each workspace feature.

Quick select

Use Quick select to list bins by the criteria:

not yet processed

This button lists bins that contain content uploaded before the User could enter or modify its metadata: see **Manual Upload** on page 13.

via watchfolder

This button lists bins containing content recently uploaded using one of the watchfolder functions, see **Auto Watch** on page 16.

year

Bins are also listed by the year that they were uploaded.

Quick select

not yet processed (0)

via watchfolder (0)

2009

2008

2007

Search

My bins

Bins

Bin Name	Description	Creat. Date	Actions
 INN Instant News Network	24x7 WebTV News	2009-08-12 23:01:01:06	<input type="button" value="edit bin metadata"/> <input type="button" value="merge bin with..."/> <input type="button" value="delete this bin"/> <input type="button" value="create media now"/>
			<input type="button" value="edit bin metadata"/> <input type="button" value="merge bin with..."/> <input type="button" value="delete this bin"/> <input type="button" value="create media now"/>

Bin Name

Click on the Bin Name or the thumbnail image above it to display contents of that bin. The name is from the bin's metadata.

Description

Description entered in the bin's metadata.

Actions

The User's rights determine which of these actions are available, see **User Admin** on page 36.

edit bin metadata

- Add, change, or delete the bin's metadata.
Refresh page to see changes.
- Display list of media in the bin.
- Upload graphic file to display as bin's thumbnail image.

delete this bin

- Delete the bin and its contents from the MA server.



This Procedure Permanently Deletes Files. There is no undo for this procedure.

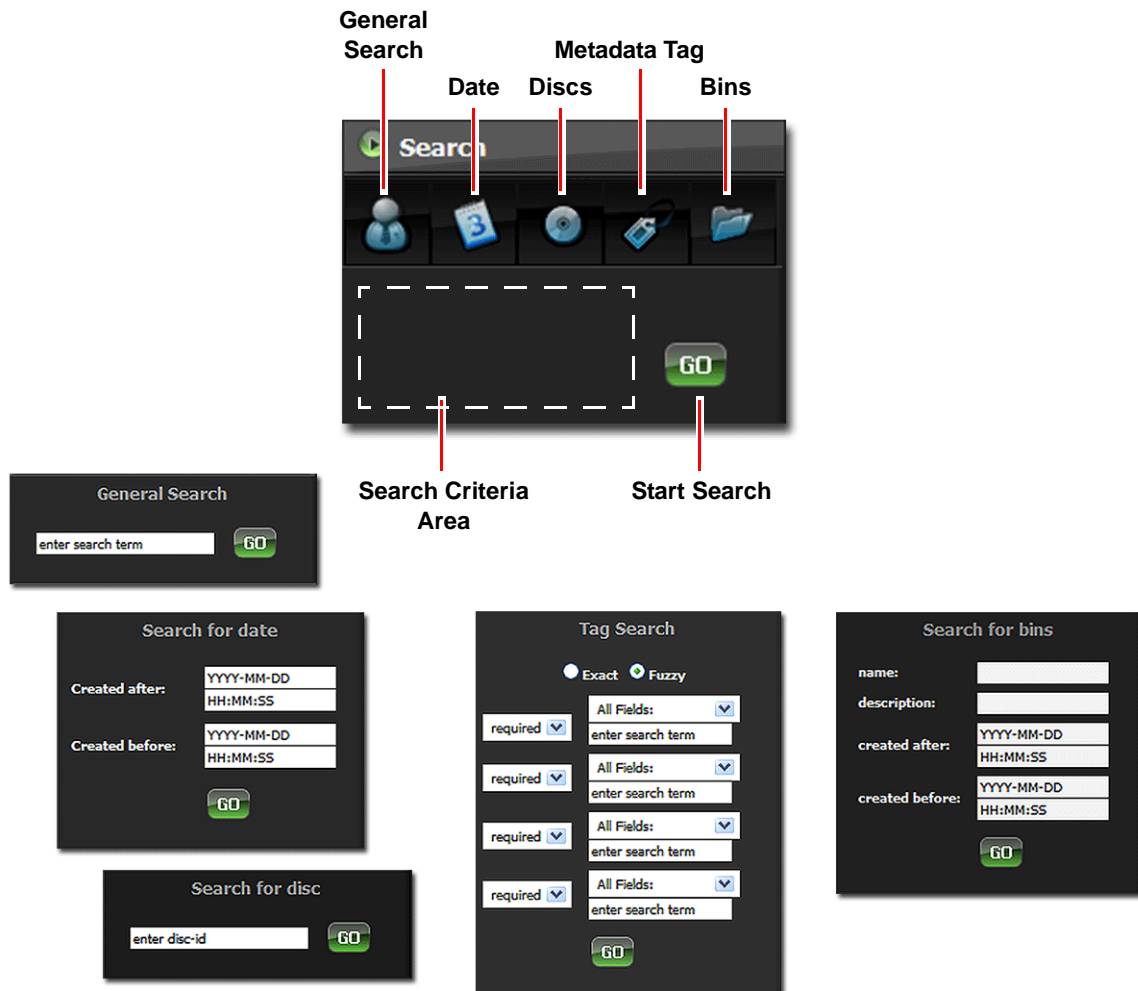
merge bin with ...

- Specify a target bin to merge with.
- MA server moves the contents from the current bin to the target bin.
- Once empty, the current bin is deleted.

create media now

- Use this function to create an archive immediately, without meeting default burn setting criteria: e.g. 70% of archive disc has not been met.
- Immediately burns content to an archive disc, provided it does not conflict with a scheduled burn. ProxSysMA Services manual settings are used.
- Uses Administrator predefined media settings, see **Create media now (Burn-on-Demand)** on page 43.

Search



The **Search** menu bar provides five categories of search criteria.

Note

MA Server Search Engine

The MA server employs the Apache Lucene search engine. The MA server supports:

- Single and multiple character wildcard searches.
- Boolean logical operators AND, OR, and NOT. These operators must be entered in ALL CAPS.
- Phrases delimited by quotation marks.
- Escaping the special characters that are part of the query syntax. These special characters are + - & || ! () { } [] ^ " ~ * ? : \ .

In general, the search procedure involves:

1. Selecting a search category: **General Search**, **Date**, **Discs**, **Tags**, or **Bins**.
2. Filling the search parameters.
3. Clicking on **Go** to start the search.

Search results appear in the **Search Results** pane to the right of the **Search** function.

General Search

Use a word or character string to perform a search of the properties of all contents for matches. General Search does not support dates.

Date

Search for contents using their creation dates. It is possible to specify a specific date, if known, or a range of dates using the **Created after** and **Created before** parameters.

Discs

Enter the disc ID number of the disc to look for.

This search returns all of the contents on the requested disc.

Metadata Tags

Use up to four metadata tags and **Exact** or **Fuzzy** logic to search content metadata. To search:

1. Select the metadata tag from the dropdown menu listing all MA server metadata tags.
2. Enter the search term for the tag.
3. Select the type of term: **required**, **optional**, or **not**.
not excludes the term from the search.

Bins

Search for bins using their parameters **name**, **description**, and **created after/before** dates: either individually or in combination.

My bins

The screenshot displays the 'My bins' interface. At the top, a toolbar contains icons for 'Select All', 'De-Select All', 'Delete Selected', 'Edit Metadata', 'Number of Items Shown In Content Area', and 'Display Layout Tabular or List'. The main content area shows a table of files with columns for Content, Subject, Format, Description, Take, and Create Date. The table lists three AVI files related to 'Equine Assisted Therapy'. The left sidebar shows a 'My bins' list with items like '2009 Rimage', 'US AVI Type 2', etc. The right sidebar shows a 'Content File Listing (metadata layout)' with options to sort by storage id or filename.

Content	Subject	Format	Description	Take	Create Date
20090815-104727.avi 00:02:56.100 ID: 1118	Equine Assisted Therapy	AVI	|| showing off for kids	1	2009-08-15 16:47:28.0
20090815-104729.avi 00:00:55.400 ID: 1120	Equine Assisted Therapy	AVI	|| running	4	2009-08-15 17:01:15.1
20090815-104760.avi 00:02:34.15.220 ID: 1127	Equine Assisted Therapy	AVI	Rio	1	2009-08-15 17:20:06.0

Click on a bin to display its contents.

Display Layout

How the content displays depends on the layout selected.

- Tabular - displays the content files' as a table of thumbnail images accompanied by their filenames, lengths and a set function buttons: **Viewer** and **Shortlist**.
- List - displays all content as a list, see illustration above. Also includes metadata fields.

Content List Functions

Before a content file can have its metadata edited or be deleted, it must be selected for the action.

Select All

Selects all content: places a check mark before each content item.

De-Select All

De-selects all content: clears all check marks.

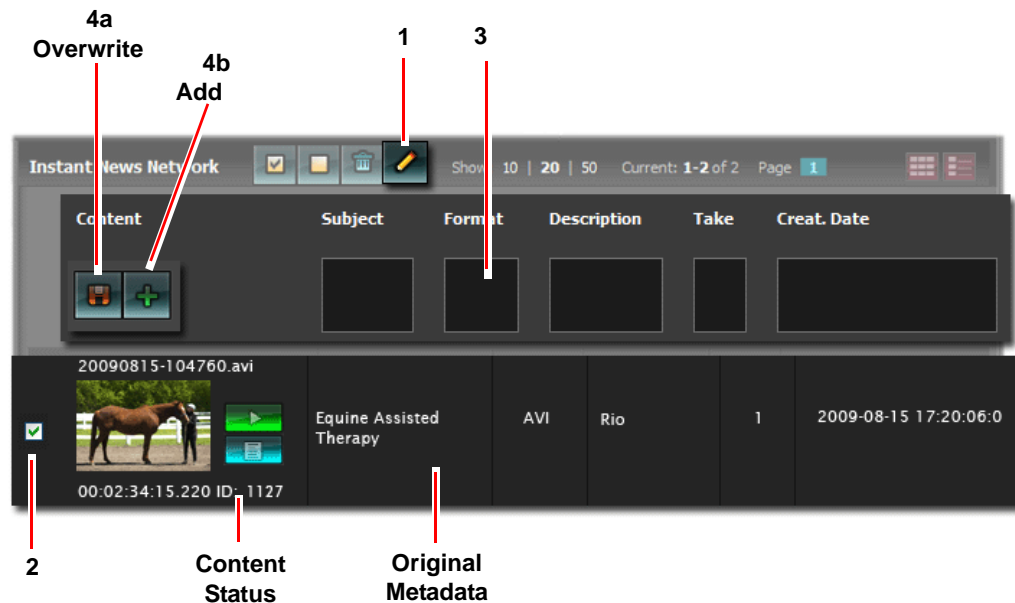
Delete Selected

Deletes content item from the bin and the MA server.



Caution: This Procedure Permanently Deletes Files: there is no undo.

Edit Metadata



It is possible to add or overwrite metadata to the existing content metadata.

1. Click on the Edit Metadata icon.

The metadata editing workspace appears, there are five editable metadata fields and two editing buttons: Overwrite and Add.

The MA server and the content may have more than five active metadata tags, however, in the My bins view, the MA server displays only the first four and the content file's creation date. To edit all metadata tags, open the Preview Player, see **Preview Player** on page 30.
2. Select the content file(s) to edit by placing a check mark in front of each content file's thumbnail.

It is possible to edit multiple content files at the same time.
3. Enter new metadata in the proper field(s).
4. Select the method for applying the metadata:
 - a. **Overwrite Existing Metadata**
Click on the Diskette icon.
 - b. **Add Metadata to Existing**
Click on the Plus icon and the new metadata is appended to the end of the existing data.

Content Status

ST: HDD

Indicates that the high resolution content is stored on the PX MA temporary storage hard drive, see **Hard Drives and Data Security** on page 2.

Rendering

Indicates that the preview file is being created.

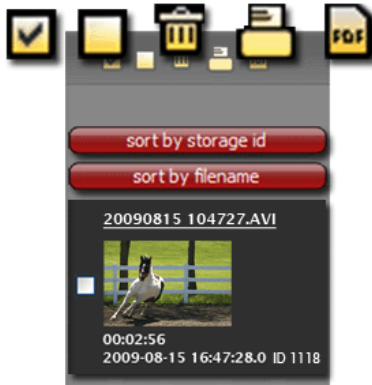
TO ARCHIVE

Indicates that the high resolution content is stored on the PX MA temporary storage hard drive, but is being processed and burned to archive disc by the ProxSysMA Burn Service, see **ProxSysMA Services Burn Tool** on page 32.

ID: 1000

The assignment of a content ID number indicates that the content is now offline and available on an archival disc with the same ID.

Shortlist (Reference List)



Use the **Shortlist** to create a reference list for locating archived content. Output the list as a PDF document or an HTML page. Either can be printed.

PDF files require a PDF reader, such as Acrobat.

Begin by collecting the archived content's proxy preview files in the **Shortlist** pane. Locate the files using the search function. Then, either:

- Drag and Drop files into the **Shortlist** pane.
- Click on a file's **Shortlist** icon.
- Click the **Add file to shortlist** button in the **Preview Player**, see **Preview Player** on page 30.

Organizing Shortlist Content

Organize the content list using the **sort by storage id** or **sort by filename** buttons.

Select Content to Delete

It is necessary to select content files before deleting them from the list.

Place a check mark in the box in front of the content thumbnail. The check mark icon selects all listed content and the empty box icon de-selects all content.

Shortlist Output: Printer and PDF

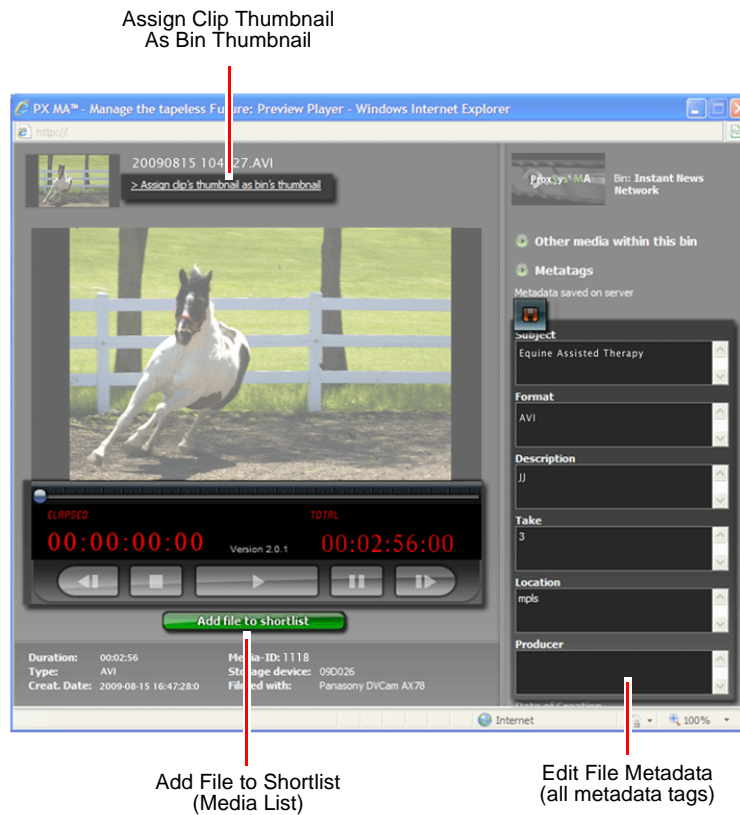
The procedures for generating a printer copy or PDF of a shortlist are similar.

Click on the **Printer** or **PDF** icon.

Printer - The MA server generates and displays an HTML print file, then opens the client computer's printer function. The list of content items contains, filename, thumbnail, subject, creation date, length, media storage ID of the archive disc where the content item is stored, and all enabled metadata, see **Metadata Management** on page 38. In addition, the printout includes a web link to the MA server generating the list.

PDF - The MA server generates a PDF document with cover page, a table of contents, a list of and the list. The list contains the filename, thumbnail, all metadata tags, creation date, length, and the media storage ID of the archive disc where the content item is stored, and all enabled metadata, see **Metadata Management** on page 38.

Preview Player



iNote

Flash Must Be Installed on the Client Computer for the Preview Player to Function.

The Preview Player provides the ability to run the preview Flash files of the high resolution content file. The preview file was automatically created when the content file was uploaded to the MA server, see **Ingest** on page 29.

iNote

Rendering Thumbnails and Preview Flash Files

A video's thumbnail appears before its preview Flash file is completely rendered. It is possible to check the status of the Flash file generation by previewing and looking at the Elapsed time slider.

The player displays all of the content file's data and metadata, as well as a list of other files in the same bin.

In addition, the Preview Player allows the User to:

- Edit the file's metadata.
- Add file to the **Shortlist**.
- Assign the file thumbnail to be the bin thumbnail.
The thumbnail is the first frame of the video clip.

Workflow: Burning Blu-ray (BD) and DVD Discs



All MA series servers offer the ability to burn single- and dual-layer BD and DVD discs for archiving. The model of MA server determines how the discs are created, manually or automatically.

It is recommended that Panasonic Blu-ray media be used for archiving.

For disc storage capacities, see **Archive Disc Capacities** on page 50.

MA-10

The MA-10 server has a manually operated, internal disc burner.

To create archive discs:

1. Create ISO image file(s) of the content using ProxSysMA Services.
Once the ISO file has been created, it appears in the **ISO-Files** folder on the **F: (Work)** or **T: (Tools)** drive. For information on drives, see **Hard Drives** on page 53.
2. Set **Tools > Burn Settings > Backend > ISO** target directory to the location of the ISO file.
3. Burn each disc manually, using the ISO file and the application provided with the MA server.
 - a. Login for the burner application is **pxma** for both Username and Password.
 - b. Consult the burner's documentation for specific operation instructions.
4. Create and output a Shortlist, see **Search and Retrieve Content** on page 10. This list includes the Media Storage ID of the disc for each archived content item.

MA-50

The MA-50 uses an automated Blu-ray burner to automatically create multiple BD or DVD discs.

To create archive BD or DVD discs:

1. Set to Primera or Rimage in Burn Settings, see **Burn Settings** on page 41.
2. Select when to burn the disc:
 - Immediately with **create media now**, see **Create media now (Burn-on-Demand)** on page 43.
 - Schedule burn time, see **Automatic Burning Schedule** on page 43.
3. When a burn starts, high resolution content is downloaded from the MA server, the virtual machine, to the work directory, see **Hard Drives** on page 53.
4. Once content is downloaded, an ISO and disc image graphic is created.
5. Content is then passed to the automated burner's software for automatic burning.

ISO Files After Burning Disc

In addition, the MA server provides the option that once the ISO file is burned and verified, the MA server can remove the high-resolution content from server storage. This option is available to Users with Administrator rights, see **Delete files after ISO creation** on page 42.

The preview Flash files and metadata are maintained on the MA server for future reference.

Burns Start After All Flash Files Are Created

If the User attempts to burn a disc before all of the preview Flash files for a job's content have been created, the MA server alerts the User and ignores the burn request. The job remains in the queue and once all the preview files are generated, the job is run during the next scheduled burn.

To burn the job as soon as possible, click on the **Create media now** action button, see **create media now** on page 24. It is also necessary that the MA server's burn settings be set for this action, see **Create media now (Burn-on-Demand)** on page 43.

Maximum Video Clip Size

A single video clip cannot exceed 50GB in size, P2 or SxS. Archiving a video clip this size requires the use of a dual-sided BD disc.

Identifying Archived Content

When a content file is archived: the file is burned to disc, file integrity verified, and the ID number of the archive disc is assigned to the content file. This number appears as the:

- ID** in the bin, below the file thumbnail,
- Media ID** in the Preview Player
- Stored on media:** in the shortlist output

In addition, each content file is assigned a unique identifier that is listed in the shortlist as the file's **ID**.

Note

Disc IDs Are Automatically Assigned and Not Customizable

To create a series of discs with a distinct name, the User can modify the Company name field, see **Label Settings** on page 44. In addition, the MA server prints the filenames of the largest clips.

ProxSysMA Services Burn Tool

ProxSysMA Services is a pre-installed application on the MA server. It starts automatically when the MA server boots up.

The burn tool uses the current **Burn Settings** to:

- Create ISO files of the content
- Configure the BD or DVD discs
- Control the disc burner, see **Burn Settings** on page 41.

Checking Burn Status

The state of the **ProxSysMA Services** icon in the desktop Tool Tray indicates the stage that the archive process is in. When the icon flashes:

- **Red** - content is downloading
- **Green** - ISO file is being created
- **Yellow** - burning is taking place

In addition, it is possible to display archive process details.

1. Click on the **ProxSysMA Services** icon in the desktop Tool Tray.
The **ProxSys MA Services Status** window appears.
2. Click on the **Details** button in the status window for more information and access to the burn log.
If the **Details** window does not appear, it is because the burn tool is in idle mode.
3. Click **Close** to close the status window.
This does not terminate the service.

Print-to-DVD Labeling

The MA-50 server has the ability to print directly to inkjet ready DVDs.

Note

Use Only Print-to-DVD Media for Disc Labeling

Focus Enhancements recommends using only inkjet print-to-DVD media for disc labeling, rather than:

- Adhesive labels
- Writing on the disc surface with indelible markers



Preventing Data Corruption

Media must be kept extremely clean during recording and playback or un-correctable digital errors will occur.

Administration Tools

These functions require Administrator's rights.

The MA server Administrator has all the capabilities of the User plus a set of four server administration tools:

Tools



User Admin	36
Metadata Management	38
Performance	40
Burn Settings	41
Unarchived Content	46



Hardware Key Required Before MA Applications Can Function

Before the MA applications can work, it is necessary to install a hardware key, dongle, in one of the USB ports of the MA server, see **MA Dongle** on page 53.

Default Login

The MA server is shipped with a default login to permit the Administrator initial access.

Username: Administrator

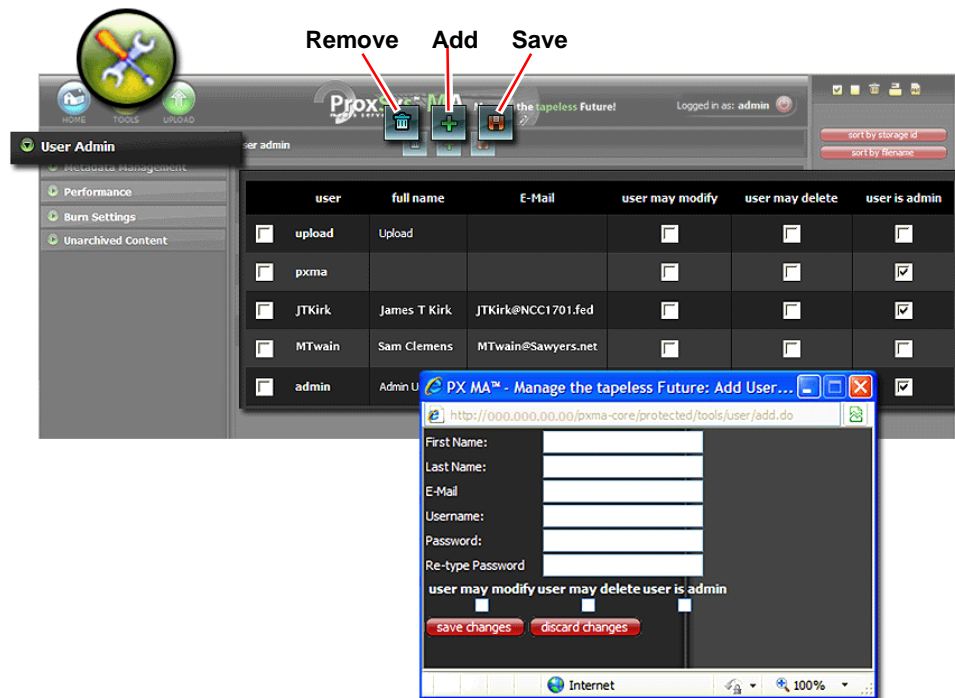
Password: admin

Username and Password are case sensitive.



Once the MA server is installed, secure the server by changing its Username and Password.

User Admin



The **User Admin** tool supplies the ability to add and remove MA server Users and set their privileges.

User Privileges

The privileges assigned determine which bin Actions are available.

User may modify bin and content metadata and merge bins.

User may delete content and bins.

User is admin assigns modify and delete privileges and access to administration **TOOLS**.

Adding a New User

1. Click on the **Plus** sign above the list of Users.
A form window appears.
2. Complete the new user's information.
3. Set User privileges.
4. Click **Save Changes**.
The new User appears in the User list.

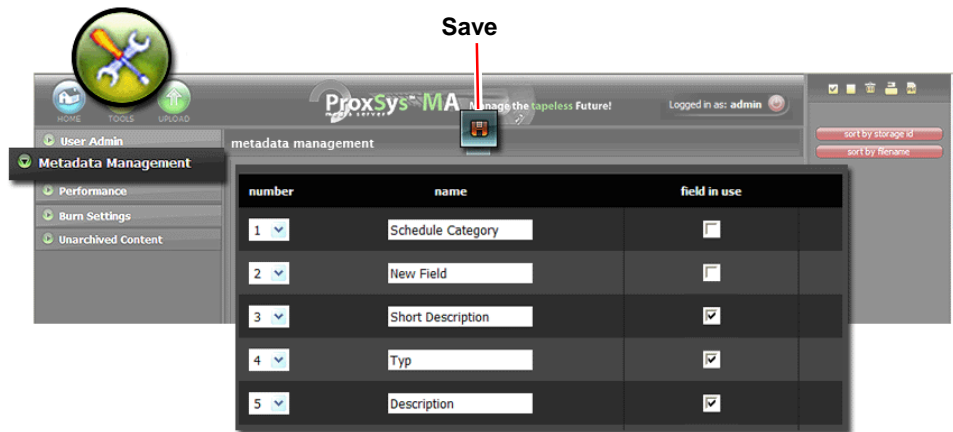
Removing a User

1. Insert a check mark in front of the User(s) to be removed.
2. Click on the **Trash Can** icon.
A dialogue window appears asking confirmation for removal.
3. Click on **Yes**.
4. The MA server removes the User.

Changing User Privileges

1. Insert a check mark before the User(s) with changing privileges.
2. Insert or remove a check marks in front of the privileges that are changing.
3. Click on the Diskette icon to save changes.

Metadata Management



Use the **Metadata Management** list to create, name, organize, and activate the MA server's set of 25 metadata tags. The User/Administrator can name these tags to match any metadata standard or job required. Placing a check mark in a tag's **field in use** box enables the tag and it appears in the upload utility's Load External Metadata table where it is used to synchronize the ingesting of video clip metadata, see **Load External Metadata** on page 20.

Metadata Tags

Metadata is information that relates to the content itself or the organization's categorization of content. Most often, metadata is initially added during production and then used in post-production. The list of metadata tags created and how they are used depends on the complexity of the production/post-production environment.

Two examples are below:

Simple Metadata Workflow

A simple metadata workflow is when the same set of metadata tags are used, in its entirety, for all projects: from production and through post-production. In such a case, the User/Administrator creates and enables a list of tags once. Only if the organizational workflow changes, will it be necessary to change the list of tags.

An example is a wedding videographer who records events that have identical metadata requirements.

Complex Metadata Workflow

A complex metadata workflow is when there are different types of projects that require different sets of metadata. In such a case, the User/Administrator creates a master set of all tags and then enables project specific subsets of the master list. The User/Administrator may need to frequently enable/disable tags, depending on the content being ingested.

An example is a video news company that records a variety of event types: business, crime, interviews, sports, etc. When collecting and ingesting content from a variety of events, it is more efficient to use only the metadata tags that apply to each event.

The metadata tags that are available for a specific project are set by the User/Admin with the **Field in use** control, see page 39. In addition, the Media Upload Utility must be configured for each project workflow. These settings are saved on the MA server.

Note

Multiple MA Server User/Administrators and Multiple Media Uploaders

If the MA server has multiple User/Admins and each has installed their own media upload utility, then each User/Admin must setup the MA metadata and their uploader for those metadata tags that they need.

Metadata Controls

The MA server metadata controls are:

Number

Set the order in which the metadata tags appear in the metadata management window.

Name

Enter the name of the metadata tag. This name may be a standardized tag name used in a NLE or unique.

Field in use

Placing a check mark enables the metadata tag and allows it to collect metadata. Enabled fields appear in the **ProxSysMA metadata** column in the Media Upload Utility Configuration window.

Note

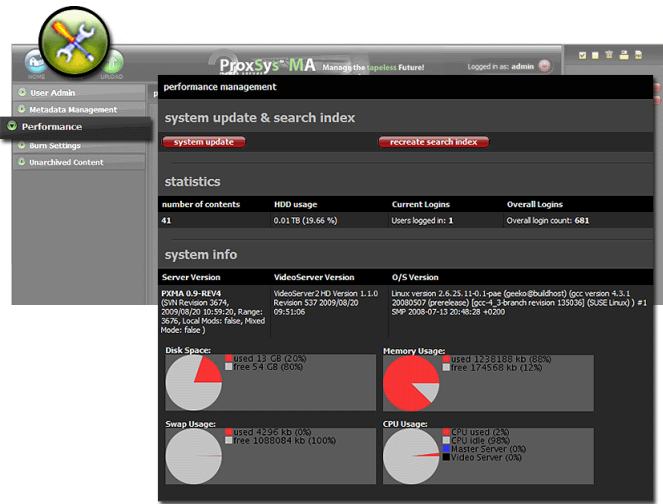
Remember to Save Metadata Settings



Notify Users When Making Changes to Metadata Fields

A User must restart their **Media Upload Utility** to download changes made with the **metadata management**.

Performance



The **Performance** provides controls for updating the system and regenerating the MA server's search index and displays of current MA server statistics and system information.

System Update

Click on this button and the MA searches for update files that have been uploaded to the server.

Recreate Search Index

Use to regenerate the MA server's search index.
Remember to **Save**.

Statistics

- number of contents
- HDD usage
- Current Logins (Users)
- Overall Logins

System Information

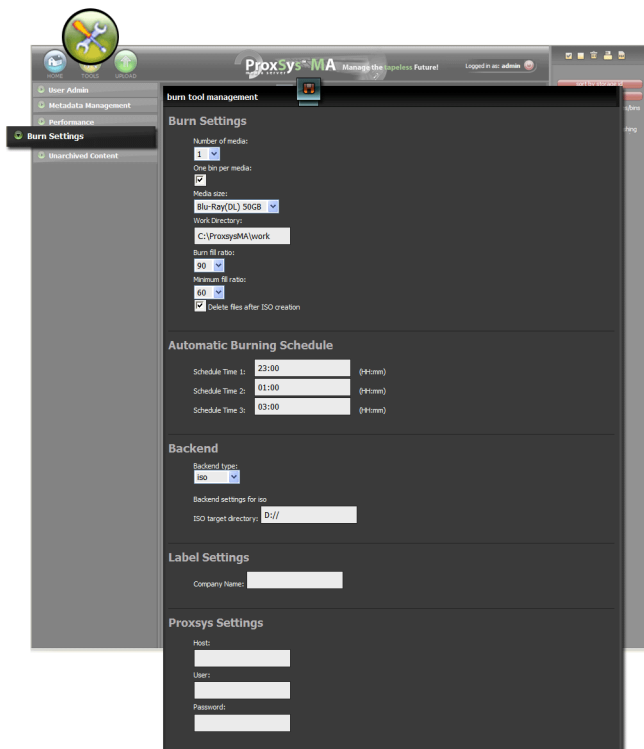
- Server Version
- Video Server Version
- O/S Version (operating system)
- Disk Space (used/free)

Note

Disk Space Is For PX MA VM Core Storage and Does Not Include Windows Temporary Storage

- Memory Usage (used/free)
- Swap Usage (used/free)
- CPU Usage (used/idle, master server, video server)

Burn Settings



Burn Settings controls the configuration and operation of the MA server's Blu-ray burner. The User can burn a disc, on demand, using the **Create media** button in their bin but, the configuration for the disc is predefined by the Administrator.

iNote

Burn Settings and Their Options Depend on the MA Server Model and the Type of Disc Burner Used

Remember to Save Settings By Clicking On the Diskette Icon.

The settings are grouped by function.

Burn Settings

These settings define the type of media to be used.

Number of media

Select the maximum number of discs to use when creating the burn job.

The MA server uses the **Burn fill ratio** to optimize the ISO files for most efficient use of disc storage.

One bin per media

There are two modes: One Bin and Mixed.

One Bin Mode

When enabled, the BD burner, burns the content from one bin on each media. This can be used to separate content from different Users or projects to different media.



Creation of the ISO file will not start for a queued bin until all of its preview files have been rendered.

Mixed Mode

It is possible to create a disc with content from multiple bins, if the burn schedule is set to 00:00h and the **one bin per media** is not set.

To start the mixed mode burn, the User clicks **Create media now** in the bin, with this button only the content from this bin is burned to a media, even the function is activated on several bin's. Then at 00:00 the ProxSys MA will burn all the remaining content and optimize to use minimal media to burn.

Media size

Select the type of storage media and capacity from the dropdown list.

Work directory

Located in the MA server's Windows OS, this directory is where the ISO files used for burning discs are created and saved. This directory is shared with **ProxSysMA Services**.

Burn fill ratio (MA-50 only)

This setting triggers the automated burning of discs. The ratio is size of content to capacity of selected media type.

Example

If Blu-ray DL (double layer) discs are used, each disc has a capacity of 50GB. Setting the **Burn Fill Ratio** to **90%** means that there must be 45GB of content loaded in the bin before the automated burn begins.

Minimum fill ratio (MA-50 only)

This setting specifies the minimum size of content required to trigger a disc burn. The ratio is the size of content to capacity of selected media type.

Delete files after ISO creation

Enable this option to delete all local files, i.e. high-resolution content and metadata files, after successful creation of the ISO file.

Automatic Burning Schedule

The MA server provides three timers for scheduling batch burns during a 24 hour period. At each scheduled time, all queued jobs are processed.

The MA-50 uses templates to create media labels, see **Label Settings** on page 44.

Create media now (Burn-on-Demand)

Typically, the automatic burning timers control when storage media is created. However, it is possible to allow Users to burn-on-demand discs for individual bins. To do this:

1. The User must select a burn time that does not conflict the scheduled burn settings.
2. The following Administration **Burn Settings** must be:
One bin per media is enabled.
One of the **Automatic Burn Schedules** set to **00:00**.
3. The **Backend** settings must be set to the appropriate MA-50 burner, see **Backend Settings - MA-50** on page 43.
4. Start the burn by clicking on the **Create media now** button in the bin.



Creation of the bin's ISO file will not start until all of its preview files have been rendered.

Backend Settings - MA-10

Backend Type

From the dropdown list, select the type of output.

ISO - Create ISO files that the User then burns to disc.

ISO target directory - This directory receives the ISO files after they are generated.

Backend Settings - MA-50

Backend Type

From the dropdown list, select the type of output. The type selected determines which group of settings is displayed.

ISO - burn an ISO file for manual archiving.

ISO target directory - This directory receives the ISO files after they are generated.

Primera - The MA-50 is equipped with this robot burner.

Rimage - A robot burner.

Check Focus Enhancements for the latest list of qualified devices,
www.focusinfo.com.

Primera Settings

The Primera burner is pre-installed and its settings are automatically filled.

Client ID: pxma

Primera Hot Folder: C:\PTBurnJobs

Primera Label: C:\ProxsysMAService\ProxsysMAPPTemplate.std

Rimage Settings

The Rimage burner is pre-installed and its settings are automatically filled.

Client ID: pxma

Rimage User Host: depends on Customer's network configuration.

Rimage User Port: depends on Customer's network configuration.

Rimage XML Path: C:\RTBurnJobs

Rimage Label: C:\ProxsysMAService\ProxsysMAPPTemplate.btw

Label Settings

The User may create disc labels containing **Company Name** and **Disc ID** with the default template supplied with the MA server.

Note

Use Inkjet Ready Discs for Print to Disc Labeling

Do not use adhesive labeling materials.

MA-10

When burning ISO files, the MA server generates a PNG image file for the label. The ISO and PNG files are stored in the same directory. The label is manually printed on to the disc.

MA-50

The MA-50 uses templates to position graphics and text fields for the automatic printing of media labels. The template filenames are:

Primera - ProxsysMAPPTemplate.std

Rimage - ProxsysMAPPTemplate.btw

Custom Labels

Custom labels may be created: this requires the use of the label making application supplied by the burner manufacturer:

Primera - use PTPublisher

Rimage - use CD Label

At a minimum, custom templates must have the same fields as in the default template.

ProxSys Settings

These settings allow the **ProxSysMA Services** to connect with the MA server and the Blu-ray burner.

1. Set **Host** to **localhost**.



Windows Admin Privileges Required To Change the ProxSys IP Addresses.

2. Set **User** name and **Password**.

Unarchived Content

The screenshot shows the 'Unarchived Content' menu in the Proxysys MA interface. The main content area displays a list of bins and files. The bins shown are:

- Bin: 17. August 2009 11:24 (DW)
- Bin: XDCAM EX
- Bin: P2

The files listed are:

filename	lastchange	render status
BeerCommercial.mpeg	2009-08-17 12:10:36.332	PREVIEW FAIL
0486PP.xml	2009-08-17 12:13:14.532	OK, FILE TYPE HAS NO PREVIEW
AD_PAGO.m2p	2009-04-17 17:58:50.208	PREVIEW OK
Bin: XDCAM EX		
filename	lastchange	render status
Sony_XDCAM_EX_709_3202	2009-08-17 11:47:09.33	PREVIEW OK
Bin: P2		
filename	lastchange	render status
Panasonic_P2_0001RX	2009-08-17 14:18:51.013	PREVIEW OK

The **Unarchived Content** menu provides a list of the content that is currently on the MA server. It is good practice to review MA server content at least once every two weeks to verify that adequate storage remains available for temporary and preview files.

iNote

Available Disk Space in the Performance Menu is for PX MA VM Core Only

The available disk space shown in the Performance menu does not include Windows temporary storage.

The **Unarchived Content** menu offers three features:

- Current status of preview file creation for listed content,
- Expedite creation of preview files for selected high resolution content,
- Replace functional generic MA preview file for failed preview file,

Preview File Status

The User may determine the status of preview flash file creation for files that have been uploaded to the MA server but not yet archived. There are four rendering status messages:

- **RENDERING**
This message appears with a status bar indicating progress. of rendering process.
- **PREVIEW OK**
Indicates that the preview flash file was rendered successfully.
- **PREVIEW FAILED**
Indicates that rendering was attempted but terminated. Check to see if file type is supported.
- **OK, FILE TYPE HAS NO PREVIEW**
Indicates that the uploaded file is not a video and that a preview file was not generated. Files that do not have preview files display a generic thumbnail.

Render Preview

To create preview files, select file(s) and click on the **Render** icon. This places the files at the end of the current rendering queue.



If Render Fails

The most common reason for the render process to fail is that the file's format is not supported by the MA server.

To view the latest rendering status for listed files, use the browser's **Refresh** function to update the page.

Replace Failed Preview with Generic Preview

Video clips that do not have functional preview files are not automatically archived. The User may either:

- Attempt to create a functional preview file by re-rendering the high resolution content,
- Delete the content,
- Replace the failed preview file with a functional generic preview file supplied by the MA server,

To replace the failed preview file with the functional generic MA preview:

1. Go to **Tools > Unarchived Content**.
This procedure requires Administrator rights.
2. Select the high resolution clip(s) that have failed previews.
3. Click on the **Replace Preview with Generic** icon at the top of the unarchived content list.
The MA server can now archive the high resolution video clip.

Technical Information

This chapter provides technical information about the ProxSys MA Series Media Archive Server's operation.

This chapter contains the topics:

Media Formats	50
Calculated Storage Requirements	51
Archive Disc Capacities	50
Maximum File Size Supported	52
Hardware	53
MA Dongle	53
Hard Drives	53
RAID Data Protection	56
OS and Virtual Machine Operations	56
Windows XP PRO	56
SUSE Linux	56
Installing Third-party Software	57
Operations	58
MA Server Applications Fail to Initialize	58
Viewing Preview and Video Files Without the MA Server	58
Backing Up Proxy Preview Files and Metadata	58
Restarting the MA Server	59
If MA Server Login Fails	60
IP Networking Information	61
P2 Information	66
File Handling During Ingesting and Archiving	66
High Resolution Content	66
P2 and PX MA Metadata	66

Media Formats

Standard	Res.	Frame Rate	Camera/ DTE Recorder
P2 NTSC			
DV	480	24 P	
DV	480	24 PA, P2	
DVCPRO	480	24 P2	
DVCPRO	480	24 PA, P2	
DVCPRO50	480	24 P2	
DVCPRO50	480	24 PA, P2	
DVCPRO50	480	30 P2	
DVCPROHD	1080	24 PA, P2	
DVCPROHD	1080	24 P2	
DVCPROHD	780	24 P2	
P2 PAL			
DV	576	25 P2	
DVCPRO	576	25 P2	
DVCPRO50	576	25 P2	
XDCAM NTSC			
HQ	1080	60 i	(1920X1080/59.94i)
SP	1080	60 i	(1440X1080/59.94i)
HQ	1080	30 P	(1920X1080/ 29.97P)
HQ	1080	24 P	(1920X1080/ 23.98P)
SP	1080	24 P	(1440X1080/ 23.98P)
HQ	720	60 P	(1280X720/59.94P)
HQ	720	30 P	(1280X720/29.97P)
HQ	720	24 P	(1280X720/23.98P)
XDCAM PAL			
HQ	1080	50 i	(1920X1080/50i)
SP	1080	50 i	(1920X1080/50i)
HQ	1080	50 i	(1920X1080/25P)
HQ	720	25P	(1280X720/25P)

Standard	Res.	Frame Rate
M2T NTSC		
GY-HD2XX M2T	720	30 P
GY-HD2XX M2T	720	60 P
CANNON XL H1 M2T	1080	24 F
CANNON XL H1 M2T	1080	30 F
CANNON XL H1 M2T	1080	60 i
SONY V1 M2T	1080	24 A
SONY V1 M2T	1080	24 P
SONY V1 M2T	1080	30 P
SONY V1 M2T	1080	60 i

M2T PAL		
GY-HD2XX M2T	720	25 P
GY-HD2XX M2T	720	50 P
SONY HDR-HC 7e M2T	1080	50 i

Standard	Res.	Frame Rate
QuickTime .Mov		
	720	60 P
	1080	60 P

Audio Format	Sample Rate
MPEG Audio Layer 1–2	32 kHz–48 kHz
MPEG-2	32 kHz–48 kHz

Calculated Storage Requirements

Video Format	Hours/Terabyte
DV	79
HDV	90
MPEG-2 (4 Mbps)	538
MPEG-2 (6 Mbps)	364
MPEG-2 (10 Mbps)	222
DVCPRO HD (1080i 60)	19

Maximum File Size Supported

MA servers support file sizes as large as 50GB, including XDCAM.

BD and DVD Disc Capacities

Disc Type	Single Layer	Dual Layer
DVD	4.7GB	8.4GB
Blu-ray	25GB	50GB

Hardware

MA Dongle

MA servers require that a USB hardware key (dongle) be installed in a server USB port before the server will operate. Insert the dongle before power up of the server.

The dongle must remain in the USB port for the applications to function.

Hard Drives

MA servers use three high capacity hard drives. How the drives are configured depends on where they are used.

North, Central, and South America

These MA servers have three drives: two 1TB and one 500GB.

The 500GB drive has two virtual drives:

- **C: (Windows)**

Windows XP PRO operating system. **Do Not Modify: This Is Not A User Drive.**

This drive provides temporary storage of the high-resolution content during the Ingest process. When the MA server verifies that the content is archived on a disc, this content is erased from the drive.

- **F: (Work)**

This is the where the User works. There are five folders:

PXMA-auto-archive

This folder is shared on the network and used by the **Auto Watch** functions for uploading files from local NLE or ingest stations.

PXMA-local-Copy

This folder is shared on the network and used by the **Copy to local folder** function for downloading files from the MA server to local NLE systems or shared network storage.

ISO-Files

Folder where the ISO files are generated. On PX-10 they need to be dragged into the burn tool manually, on MA-50 they are stored here temporarily until taken into the automated disc burner.

PXMA-auto-archive

This folder is shared on the network and used by the **Auto Watch** functions for uploading files from local NLE or ingest stations.

Tools

This folder is used by the various MA applications and has various sub folders.

Note

Desktop Shortcuts Provide Access to User Folders

Drive **T:** is the only drive with User accessible folders. To assist the User, desktop shortcuts are provided for all accessible folder.

The two 1TB data drives form a RAID 1 system. This is represented by the virtual drive:

- **V: (PX-VM-Storage)**

This drive is for PX MA server and VMware storage. It is where the MA server store's its database and preview clips. **Do Not Modify: This Is Not A User Drive.**

Note

Backup PX-VM-Storage Folder to Archive MA Database and Proxy Preview Files

Backup the **PX-VM-Storage** folder as part of MA server disaster recovery plans.

Europe, Middle East, Africa and Asia

These MA servers have three 1TB drives, each with two partitions, creating 6 virtual drives.

- **C: (Windows)**

Windows XP PRO operating system. **Do Not Modify: This Is Not A User Drive.**

This drive provides temporary storage of the high-resolution content during the Ingest process. When the MA server verifies that the content is archived on a disc, this content is erased from the drive.

- **T: (Tools)**

Tools drive, this is the drive where the User works. There are four folders:

- **PXMA-auto-archive**

- This folder is shared on the network and used by the **Auto Watch** functions for uploading files from local NLE or ingest stations.

- **PXMA-local-Copy**

- This folder is shared on the network and used by the **Copy to local folder** function for downloading files from the MA server to local NLE systems or shared network storage.

- **ISO-Files**

- Folder where the ISO files are generated. On PX-10 they need to be dragged into the burn tool manually, on MA-50 they are stored here temporarily until taken into the automated disc burner.

- **Tools**

- This folder is used by the various MA applications and has various sub folders.

Note

- **Desktop Shortcuts Provide Access to User Folders**

- Drive T: is the only drive with User accessible folders. To assist the User, desktop shortcuts are provided for all accessible folder.

- **V: (PX-VM-Storage)**

PX MA server and VMware storage. **Do Not Modify: This Is Not A User Drive.**

The **V:** drive stores the virtual MA server's database and preview clips.

Note

- **Backup PX-VM-Storage V: Drive to Archive MA Database and Proxy Preview Files**

- Backup **V:** drive as part of MA server disaster recovery plans.

RAID Data Protection

RAID 1

In North America, the MA servers protect data using a RAID 1 implementation. The MA server has three drives, a 500GB drive used as a buffer and two 1TB drives for data storage. One data drive is the data mirror of the other. Should one data drive fail, it is possible to replace it and duplicate the data on that drive from the other.

RAID 5

In Europe, the MA servers protect data using a RAID 5 implementation. Each of the three 1TB drives has two partitions, creating 6 virtual drives. Data and parity information is striped across the virtual drives. Should any single real hard drive fail, it is possible to recreate that drive's data on its replacement drive.

Replacing a Failed Drive

Power down the MA server before replacing the failed drive. When the server powers up, the data from the failed drive is automatically rebuilt on its replacement.

OS and Virtual Machine Operations

The PX MA Series server's host operating system is Windows XP PRO. VMware is used to create a virtual machine with SUSE Linux as its OS. During operation the server's XP PRO/virtual SUSE Linux configuration is invisible to the User/Administrator.

Windows XP PRO

The XP PRO, 32-bit, provides the environment in which the following applications run:

- **Internet Browsers**
The MA server supports Microsoft Internet Explorer 6 or higher and Safari browsers.
- **JAVA Runtime 6 V13**
This is required for the ProxSysMA Services application.
- **Media Upload Utility**
The upload utility is a JAVA application.
- **ProxSysMA Burn Tool Services**
ProxSysMA Services is a JAVA application used for creating ISO files and burning BD discs.
- **Disc Burning Application**
This application is provided with the MA server. Use it to burn ISO files to disc.
- **VMware**
The VMware Workstation automatically starts when the MA server powers up. The workstation window appears on the desktop and should be left open and allowed to run in the background.

SUSE Linux

SUSE provides the environment for the **ProxSys MA Series Server** application.

Installing Third-party Software

With the following exceptions, Focus Enhancements recommends that third-party software should not be installed on the MA servers.

These applications must be installed on the MA server **C: (Windows)** drive.

For the MA-10 and MA-50:

- **P2 Viewer**

The User may download the P2 viewer from

https://www.pavc.panasonic.co.jp/pro-av/sales_o/p2/p2viewer/index.html.

Note

P2 Drivers May Be Required

If the Media Upload Utility is installed on a Windows or Mac system, it is necessary to download the appropriate platform P2 drivers.

Go to: <https://www.pavc.panasonic.co.jp/pro-av/support/desk/e/download.htm#p2pcdriver>

For P2 files, it is assumed that there is a P2 card reader installed.

- **Sony XDCAM EX Clip Browser software**

The browser may be downloaded from:

<http://pro.sony.com/bbsc/ssr/micro-xdcamexsite/resource.downloads>.

Note

SxS Drivers May Be Required

If the Media Upload Utility is installed on a Windows or Mac system, it is necessary to download the appropriate platform SxS drivers.

Go to: <http://pro.sony.com/bbsc/ssr/micro-xdcamexsite/resource.downloads>

- **PDF Reader**

Operations

This section provides information and instructions for situations that require intervention on the part of the Administrator.

MA Server Applications Fail to Initialize	58
Viewing Preview and Video Files Without the MA Server	58
Backing Up Proxy Preview Files and Metadata	58
Restarting the MA Server	59
If MA Server Login Fails	60
IP Networking Information	61
P2 Information	66

MA Server Applications Fail to Initialize

Verify that the MA server's dongle, USB hardware key, is installed in one of the server's USB ports. If the dongle is removed, MA applications will not function.

Viewing Preview and Video Files Without the MA Server

If the MA is inaccessible, it is possible to view proxy preview files and video clips that are stored on an archive disc. This includes P2 and XDCAM. Required to view these files:

- A PC or Mac with a disc drive that is compatible with the archive disc: BD or DVD.
 - an installed Flash player for viewing the proxy preview files.
 - A player application that is compatible with the video clip format.
- P2 and XDCAM embed the video file, its metadata, and other information in an MXF wrapper file. P2 and XDCAM each require a specific player, or can be loaded into an NLE for viewing.

Backing Up Proxy Preview Files and Metadata

Typically, a MA Server can store 2500 hours of proxy preview files and their associated metadata before it is necessary to backup content. Metadata is stored in the MA server's database.

The location of the files to backup depends on the drive configuration of the MA server:

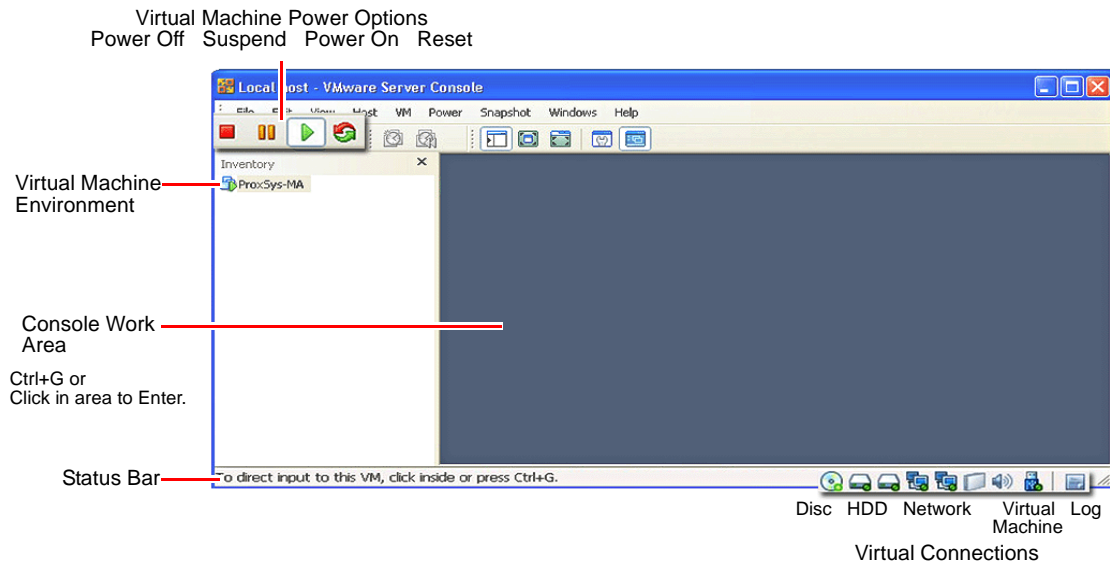
RAID 1 (North, Central, and South America)

Backup proxy preview files and database from the system's Window **V:** drive. For more information about system drives, see **North, Central, and South America** on page 53.

RAID 5 (Europe, Middle East, Africa, Asia)

Backup proxy preview files and database from the system's Window **V:** drive. For more information about system drives, see **Europe, Middle East, Africa and Asia** on page 55.

Restarting the MA Server



Occasionally, it may be necessary to reboot the MA server system, i.e. after installing a Windows security upgrade. To do this, it is necessary to:

1. Power down the MA server on the virtual machine.
This step immediately stops the MA server regardless of the programs that are running.
 - Select the server in the VM environment.
 - Click on the red Power Off button.
2. Shut down the VMware application.
3. Conduct Windows restart of the MA server system.

When powering up the MA server the VMware virtual machine starts automatically in the background as the system is booting. It can take up to 10 minutes for the virtual machine to load all necessary services, including the MA server.

For more information about the VMware Control Console, refer to official VMware documentation.

If MA Server Login Fails

If, when logging on to the MA server through a Web browser, the login fails, determine if the ProxSys Dongle is in the right USB-Port. If the dongle is in the correct port, then the dongle activation by the VMware host may be missing.

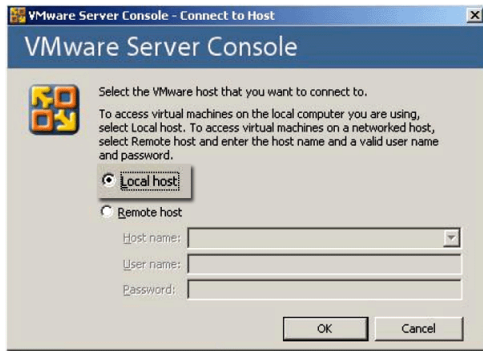
iNote

Virtual Machine Must Be Running for the Following Procedure

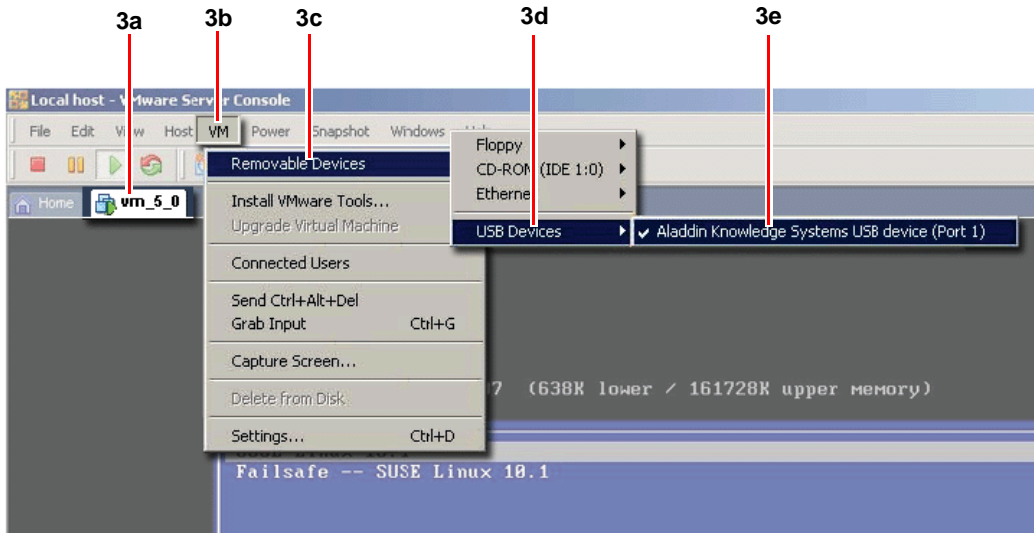
The virtual machine must be running before implementing the procedure below. If the VMware GUI window is inactive, use the key-combination **CTRL+ALT** to un-block the window. Next, click on it with the mouse: VMware's **Release Cursor Function**.

To activate the MA server's dongle:

1. Open the **VMware Server Console**.
Click on the VMware icon on the server's desktop.
2. Select Choose **Local host**.



3. Activate the ProxSys MA Server Dongle.
In the illustration, the dongle is the Aladdin Knowledge System USB device in port 1.



- a. Select the tab for the MA server's virtual machine: in the illustration, **vm_5_0**.

- b. Select the **VM** button in the menu bar.
- c. Select **Removable Devices**.
- d. Select **USB Devices**.
- e. Select the MA server dongle from the list: in the illustration, **Aladdin Knowledge System USB device (Port1)**.

The virtual machine starts.

4. After the restart, click on **Stop** and then **Start**.
5. Log on to the MA server, using the browser on the User-PC.

IP Networking Information

This IP networking information is to assist the User/Admin if network IP settings need to be changed. Because the MA server is pre configured to User network specifications, the actual LAN IP addresses may be different from those used in the examples and illustrations.

It is assumed that both the Windows host operating system and the SuSE Linux guest operating system are functional.

The MA server's network IP setup has two primary steps:

1. Configuring the Windows (host) LAN IP networking settings.
2. Configuring the MA Server's Linux (Guest to Host) IP network settings.
This requires the VMware Workstation.

Assign the MA Server A Fixed IP Address

The MA Server must be assigned a fixed network IP address to ensure that a stable connection is maintained with the real network, the host system, and the overture MA server.

Because many networks employ dynamic IP addressing, it is necessary to convert the MA server's dynamic network IP to fixed. The following procedure includes a method for converting a network IP from dynamic to fixed.

However, depending on the DHCP server's consistency at issuing the same IP to the MA server, the User/Administrator may need to periodically reset the MA system's network settings.

Note

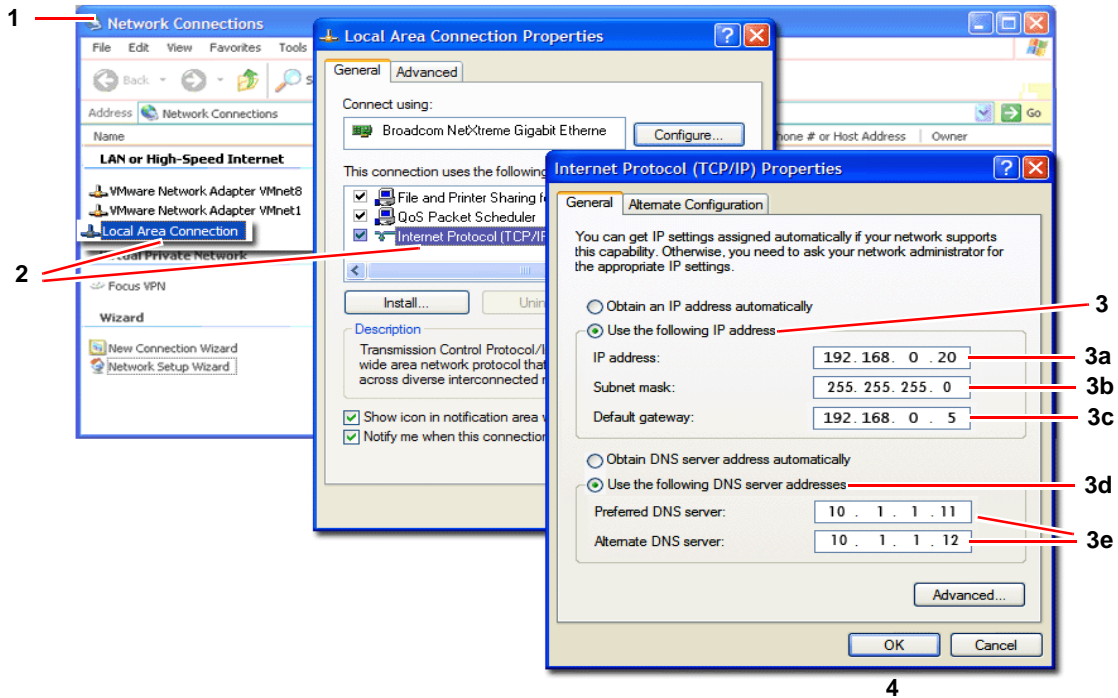
Fixed IP Addresses Preferred For MA Server LAN Connections

When connecting the MA server to a network using dynamic IP addressing, the most consistent connection uses fixed IPs.

Contact the Network Administrator and request a range of IP addresses to use for MA server network setup.

Configure Host (Windows) Network Settings

1. Display the **Windows Network Connections** window.



2. Select the system's **Local Area Connection** and display its **TCP/IP Properties**.
3. Click on the **Use the following IP address** button.

This opens the fixed IP network space.

To convert LAN IP from dynamic to fixed, requires assigning a Default gateway and DNS servers to the existing LAN IP.

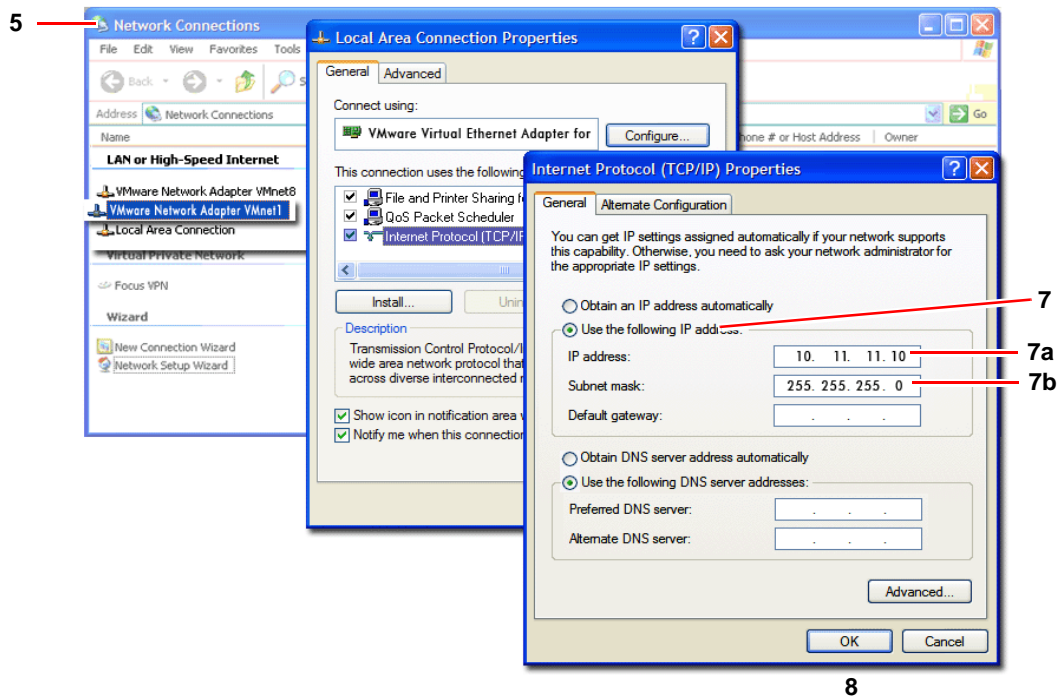
To do this:

- a. Enter the given LAN IP in the **IP address** field.
In this example, **192.168.0.20**.
- b. Enter **Subnet Mask - 255.255.255.0**.
- c. Enter **Default gateway** IP.
This is selected from the IP range provided by the network administrator. In this example **192.168.0.5**.
- d. Click on **Use the following DNS server addresses**.
- e. Enter IPs for **Preferred** and **Alternate DNS servers**.
Select these from the IP range provided by the network administrator.
In this example **10.1.1.11** and **10.1.1.12**.

For a fixed IP, the above settings already exist. Make a note of these settings because they will be used later.

4. Click **OK** to save.

5. Return to the network connections window and select the **VMnet1** connection. VMnet1 provides PC to VM connections. Ignore VMnet8, it is an internal VM to PC connection.

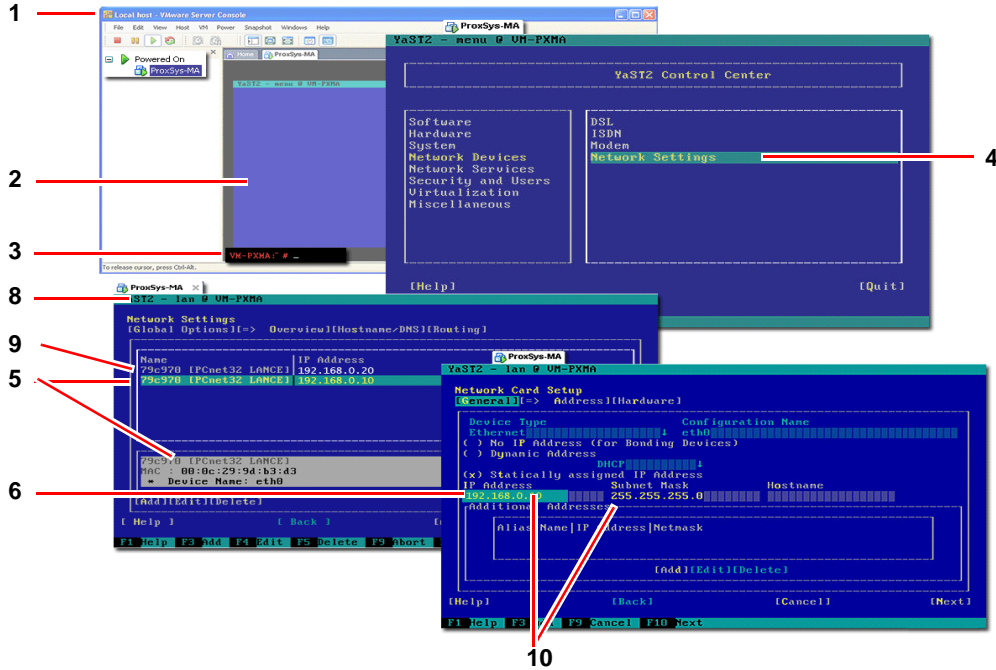


6. Display the VMnet1's **TCP/IP Properties**.
7. Select **Use the following IP address** and enter the following:
 - a. IP address - **10.11.11.10**.
 - b. Subnet mask - **255.255.255.0**.
This matches the LAN IP Subnet Mask.
8. Click OK to save.

Now configure the MA server's VM network settings.

Configure MA Server VM Network Settings

1. Open the VMware Server Console.
This should be running in the background. It is not necessary to shut it down.



Settings shown are for Network card eth0.

2. Click on the control line screen to enter the console's work area.
Inside this area, use the keyboard for all actions.
Press **Ctrl-Alt** to return the Windows environment.
3. Login to PX MA in the virtual machine with **root** and **toor1**.
4. Open the YaST Tool by entering **yast** on the control line and pressing the keyboard Enter key.
The **YaST Control Center** appears.
5. Select **Network Devices** and then **Network Settings**.
6. Use Tab key to select **Network Port eth0**.
7. Press **Alt-I** on the keyboard for editing the settings.
The **Network Settings** screen appears.
8. Enter **eth0** IP address.
This IP must be within the range of Windows host system, for example:
The Windows Host System has the IP address 192.168.0.20. This is a common private network IP address range.
Then, MA Server **eth0** should have an IP address like 192.168.0.xxx. Often, 10 is a good choice for xxx.
9. Return to the **Network Settings** screen by using the keyboard function key **F10**.

10. Select Network Port eth1.

The **Network Card Settings** screen appears.

11. Enter the eth1 IP address.

This IP must be in the range of the VMNet1 IP Address of the Windows Host system which is 10.11.11.10.

eth1 can be set fixed to 10.11.11.11 because the VMNet1 network is only used between the VM and the Windows Host system. It is not accessible by other computers in the Windows Host network.

Remember to set the **Subnet Mask** is set to **255.255.255.0**.

12. Press F10 to finish.**13. Reboot the MA server in the VM or enter on the command line:**

/etc/init.d/network restart.

P2 Information

File Handling During Ingesting and Archiving

The most important issue when the MA server uploads and ingests content from a P2 card is that the maximum size of a single video clip can not exceed 50GB in size.

Searching for and retrieving archived clips is simplified because the MA server maintains the clips relationship on the P2 card from upload through storage on archive discs. Related clips are kept together on a single disc or a sequence of discs. The MA shortlist for the content identifies each clip and on which disc it is stored.

High Resolution Content

The MA server does not change the original high resolution content. It looks the same regardless of the NLE that it is imported to.

P2 and PX MA Metadata

There can be two sets of metadata associated with a P2 file:

- **Native P2 Metadata**

This is the metadata that was added in the field, in-camera, during production and before the clip is uploaded and ingested by the MA server. The P2 metadata downloads to the NLE.

- **PX MA Metadata**

This is the data that is added using the **ProxSys Media Upload Utility** and/or one of the MA server's metadata editing functions. This metadata is maintained in the MA server database and is used for searching and retrieving proxy preview files. PX MA metadata is not compatible with P2 metadata and it is not downloaded to the NLE.

These two metadata sets are maintained separately.

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